Bibliography

This bibliography is a selection from the references collected in Vol. 1. Here we only cite authors whose results are relevant for the topics discussed in this volume.

We also refer the reader to the following Lecture notes:

MSG: Minimal submanifolds and geodesics. Proceedings of the Japan–United States Seminar on Minimal Submanifolds, including Geodesics, Tokyo, 1977. Kagai Publications, Tokyo, 1978

SDG: Seminar on differential geometry, edited by S.T. Yau, Ann. Math. Studies **102**, Princeton, 1982

SMS: Seminar on minimal submanifolds, edited by Enrico Bombieri. Ann. Math. Studies **103**, Princeton, 1983

TVMA: Théorie des variétés minimales et applications. Séminaire Palaiseau, Oct. 1983–June 1984. Astérisque **154–155** (1987)

GACG: Geometric analysis and computer graphics. Proceedings of the Conference on Differential Geometry, Calculus of Variations and Computer Graphics, edited by P. Concus, R. Finn, D.A. Hoffman. Math. Sci. Res. Inst. **17**. Springer, New York, 1991

GTMS: Global theory of minimal surfaces, edited by D. Hoffman. Proceedings of the Clay Mathematics Institute 2001 Summer School, MSRI, Berkeley, June 25–27, 2001. Clay Math. Proceedings **2**, Am. Math. Soc., Providence, 2005

We also mention the following report by H. Rosenberg which appeared in May 1992:

Some recent developments in the theory of properly embedded minimal surfaces in $\mathbb{R}^3$. Séminaire Bourbaki **34**, Exp. No. 759 (1992), 73 pp.

Furthermore, we refer to:

EMS: Encyclopaedia of Math. Sciences **90**, Geometry V, Minimal surfaces (ed. R. Osserman), Springer, 1997. This volume contains the following reports:

I. D. Hoffman, H. Karcher, Complete embedded minimal surfaces of finite total curvature.
II. H. Fujimoto, Nevanlinna theory and minimal surfaces.
III. S. Hildebrandt, Boundary value problems for minimal surfaces.
IV. L. Simon, The minimal surface equation.

U. Dierkes, S. Hildebrandt, A.J. Tromba, *Regularity of Minimal Surfaces*,
Grundlehren der mathematischen Wissenschaften 340,
DOI 10.1007/978-3-642-11700-8, © Springer-Verlag Berlin Heidelberg 2010

At last we quote the predecessor of the present treatise:

DHKW: Dierkes, U., Hildebrandt, S., Küster, A., Wohlrab, O. Minimal surfaces I, II. Grundlehren Math. Wiss. **295**, **296**. Springer, Berlin, 1992

Abresch, U.
1. Constant mean curvature tori in terms of elliptic functions. J. Reine Angew. Math. **374**, 169–192 (1987)

Acerbi, E., Fusco, N.
1. Semicontinuity problems in the calculus of variations. Arch. Ration. Mech. Anal. **86**, 125–145 (1986)

Adams, R.A.
1. Sobolev spaces. Academic Press, New York, 1975

Agmon, S., Douglis, A., Nirenberg, L.
1. Estimates near the boundary for solutions of elliptic differential equations satisfying general boundary conditions I. Commun. Pure Appl. Math. **12**, 623–727 (1959)
2. Estimates near the boundary for solutions of elliptic differential equations satisfying general boundary conditions II. Commun. Pure Appl. Math. **17**, 35–92 (1964)

Alexander, H., Hoffman, D., Osserman, R.
1. Area estimates for submanifolds of Euclidean space. INDAM Symp. Math. **14**, 445–455 (1974)

Alexander, H., Osserman, R.
1. Area bounds for various classes of surfaces. Am. J. Math. **97**, 753–769 (1975)

Alexandroff, P., Hopf, H.
1. Topologie **1**. Springer, Berlin, 1935

Allard, W.K.
1. On the first variation of a varifold. Ann. Math. **95**, 417–491 (1972)
2. On the first variation of a manifold: boundary behavior. Ann. Math. **101**, 418–446 (1975)

Almgren, F.J.
1. Some interior regularity theorems for minimal surfaces and an extension of Bernstein's theorem. Ann. Math. **84**, 277–292 (1966)
2. Plateau's problem. An invitation to varifold geometry. Benjamin, New York, 1966
3. Existence and regularity almost everywhere of solutions to elliptic variational problems with constraints. Mem. Am. Math. Soc. **4**(165) (1976)
4. The theory of varifolds; a variational calculus in the large for the k-dimensional area integrand. Mimeographed notes, Princeton, 1965
5. Minimal surface forms. Math. Intell. **4**, 164–172 (1982)
6. Q-valued functions minimizing Dirichlet's integral and the regularity of area minimizing rectifiable currents up to codimension two. Bull. Am. Math. Soc. **8**, 327–328 (1983) and typoscript, 3 vols., Princeton University
7. Optimal isoperimetric inequalities. Indiana Univ. Math. J. **35**, 451–547 (1986)

Almgren, F.J., Simon, L.
1. Existence of embedded solutions of Plateau's problem. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **6**, 447–495 (1979)

Alt, H.W.
1. Verzweigungspunkte von H-Flächen. I. Math. Z. **127**, 333–362 (1972)
2. Verzweigungspunkte von H-Flächen. II. Math. Ann. **201**, 33–55 (1973)
3. Die Existenz einer Minimalfläche mit freiem Rand vorgeschriebener Länge. Arch. Ration. Mech. Anal. **51**, 304–320 (1973)

Alt, H.W., Tomi, F.
1. Regularity and finiteness of solutions to the free boundary problem for minimal surfaces. Math. Z. **189**, 227–237 (1985)

Athanassenas, M.
1. Ein Variationsproblem für Flächen konstanter mittlerer Krümmung. Diplomarbeit, Bonn, 1985
2. A variational problem for constant mean curvature surfaces with free boundary. J. Reine Angew. Math. **377**, 97–107 (1987)

Beckenbach, E.F.
1. The area and boundary of minimal surfaces. Ann. Math. **33**, 658–664 (1932)
2. Minimal surfaces in euclidean n-space. Am. J. Math. **55**, 458–468 (1933)
3. Bloch's theorem for minimal surfaces. Bull. Am. Math. Soc. **39**, 450–456 (1933)
4. Remarks on the problem of Plateau. Duke Math. J. **3**, 676–681 (1937)
5. On a theorem of Fejér and Riesz. J. Lond. Math. Soc. **13**, 82–86 (1938)
6. Functions having subharmonic logarithms. Duke Math. J. **8**, 393–400 (1941)
7. The analytic prolongation of a minimal surface. Duke Math. J. **9**, 109–111 (1942)
8. Painlevé's theorem and the analytic prolongation of minimal surfaces. Ann. Math. **46**, 667–673 (1945)
9. Some convexity properties of surfaces of negative curvature. Am. Math. Mon. **55**, 285–301 (1948)
10. An introduction to the theory of meromorphic minimal surfaces. In: Proc. Symp. Pure Math. **11**, pp. 36–65. Am. Math. Soc., Providence, 1968

Beckenbach, E.F., Radó, T.
1. Subharmonic functions and minimal surfaces. Trans. Am. Math. Soc. **35**, 648–661 (1933)
2. Subharmonic functions and surfaces of negative curvature. Trans. Am. Math. Soc. **35**, 662–664 (1933)

Beeson, M.
1. The behavior of a minimal surface in a corner. Arch. Ration. Mech. Anal. **65**, 379–393 (1977)
2. On interior branch points of minimal surfaces. Math. Z. **171**, 133–154 (1980)
3. Some results on finiteness in Plateau's problem, part I. Math. Z. **175**, 103–123 (1980)
4. Some results on finiteness in Plateau's problem, part II. Math. Z. **181**, 1–30 (1980)
5. The 6π theorem about minimal surfaces. Pac. J. Math. **117**, 17–25 (1985)

Bemelmans, J., Dierkes, U.
1. On a singular variational integral with linear growth. I: existence and regularity of minimizers. Arch. Ration. Mech. Anal. **100**, 83–103 (1987)

Bernstein, S.
1. Sur les surfaces définies au moyen de leur courbure moyenne ou totale. Ann. Sci. Ecole Norm. Super. (3) **27**, 233–256 (1910)
2. Sur la généralisation du problème de Dirichlet. Math. Ann. **69**, 82–136 (1910)
3. Sur les équations du calcul des variations. Ann. Sci. Ecole Norm. Super. (3) **29**, 431–485 (1912)
4. Sur un théorème de géométrie et ses applications aux équations aux dérivées partielles du type eliptique. Comm. de la Soc. Math. de Kharkov (2-ème sér.) **15**, 38–45 (1915–1917) [Translation in Math. Z. **26**, 551–558 (1927) under the title: Über ein geometrisches Theorem und seine Anwendung auf die partiellen Differentialgleichungen vom elliptischen Typus.]

Bers, L., John, F., Schechter M.
1. Partial differential equations. Interscience, New York, 1964

Bethuel, F.

1. The approximation problem for Sobolev mappings between manifolds. Acta Math. **167**, 167–201 (1991)
2. Un résultat de régularité pour les solutions de l'equation des surfaces à courbure moyenne prescrite. C. R. Acad. Sci. Paris **314**, 1003–1007 (1992)

Bethuel, F., Rey, O.

1. Multiple solutions to the Plateau problem for nonconstant mean curvature. Duke Math. J. **73**, 593–646 (1994)

Bianchi, L.

1. Lezioni di geometria differenziale. Spoerri, Pisa, 1894 [German translation: Vorlesungen über Differentialgeometrie, Teubner, Leipzig, 1899]
2. Lezioni di geometria differenziale. E. Spoerri, Pisa, 1903

Blaschke, W.

1. Vorlesungen über Differentialgeometrie. I. Elementare Differentialgeometrie. II. Affine Differentialgeometrie (zusammen mit K. Reidemeister). III. Differentialgeometrie der Kreise und Kugeln (zusammen mit G. Thomsen). Springer, Berlin, 1921, 1923, 1929
2. Einführung in die Differentialgeometrie. Springer, Berlin, 1950
3. Kreis und Kugel. Veit und Co., Leipzig, 1916

Blaschke, W., Leichtweiß, K.

1. Elementare Differentialgeometrie, 5th edn. Springer, Berlin, 1973

Bliss, G.E.

1. Calculus of variations. Open Court Publ. Co., La Salle, 1925

Böhme, R.

1. Die Zusammenhangskomponenten der Lösungen analytischer Plateauprobleme. Math. Z. **133**, 31–40 (1973)
2. Stabilität von Minimalflächen gegen Störung der Randkurve. Habilitationsschrift, Göttingen, 1974
3. Die Jacobifelder zu Minimalflächen im $\mathbb{R}^3$. Manuscr. Math. **16**, 51–73 (1975)
4. Stability of minimal surfaces. In: Function theoretic methods for partial differential equations. Proc. Internat. Sympos. Darmstadt, 1976. Lect. Notes Math. **561**, pp. 123–137. Springer, Berlin, 1976
5. Über Stabilität und Isoliertheit der Lösungen des klassischen Plateau-Problems. Math. Z. **158**, 211–243 (1978)
6. New results on the classical problem of Plateau on the existence of many solutions. Séminaire Bourbaki **34**, Exp. No. 579, 1–20 (1981/1982)

Böhme, R., Hildebrandt, S., Tausch, E.

1. The two-dimensional analogue of the catenary. Pac. J. Math. **88**, 247–278 (1980)

Böhme, R., Tomi, F.

1. Zur Struktur der Lösungsmenge des Plateauproblems. Math. Z. **133**, 1–29 (1973)

Böhme, R., Tromba, A.J.

1. The number of solutions to the classical Plateau problem is generically finite. Bull. Am. Math. Soc. **83**, 1043–1044 (1977)
2. The index theorem for classical minimal surfaces. Ann. Math. **113**, 447–499 (1981)

Bokowski, J., Sperner, E.

1. Zerlegung konvexer Körper durch minimale Trennflächen. J. Reine Angew. Math. **311/312**, 80–100 (1979)

Bol, G.

1. Isoperimetrische Ungleichungen für Bereiche auf Flächen. Jahresber. Dtsch. Math.-Ver. **51**, 219–257 (1941)

Bolza, O.

1. Vorlesungen über Variationsrechnung. Teubner, Leipzig, 1909
2. Gauss und die Variationsrechnung. In: C.F. Gauss, Werke. Bd. X.2, Abh. 5, Springer, Berlin, 1922–1923

Bombieri, E.

1. Lecture Séminaire Bourbaki, February 1969
2. Theory of minimal surfaces and a counterexample to the Bernstein conjecture in high dimensions. Lectures, Courant Institute, New York University, 1970
3. Recent progress in the theory of minimal surfaces. Enseign. Math. **25**, 1–8 (1979)
4. An introduction to minimal currents and parametric variational problems. Mathematical Reports **2**, Part 3. Harwood, London, 1985

Bombieri, E., de Giorgi, E., Giusti, E.

1. Minimal cones and the Bernstein problem. Invent. Math. **7**, 243–268 (1969)

Bombieri, E., de Giorgi, E., Miranda, M.

1. Una maggioriazione a priori relativa alle ipersurfici minimali non parametriche. Arch. Ration. Mech. Anal. **32**, 255–267 (1969)

Bombieri, E., Giusti, E.

1. Harnack inequality for elliptic differential equations on minimal surfaces. Invent. Math. **15**, 24–46 (1971/1972)
2. Local estimates for the gradient of non-parametric surfaces of prescribed mean curvature. Commun. Pure Appl. Math. **26**, 381–394 (1973)

Bombieri, E., Simon, L.

1. On the Gehring link problem. In: Bombieri, E. (ed.) Seminar on minimal submanifolds. Ann. Math. Stud. **103**, pp. 271–274. Am. Math. Soc., Princeton, 1983

Bonnesen, T., Fenchel, W.

1. Theorie der konvexen Körper. Chelsea, New York, 1948

Bonnet, O.

1. Mémoire sur la théorie générale des surfaces. J. Ecole Polytech. Cahier **32**, 131 (1848)
2. Deuxième note sur les surfaces à lignes de courbure sphérique. C. R. Acad. Sci. Paris **36**, 389–391 (1853)
3. Troisième note sur les surfaces à lignes de courbure planes et sphériques. C. R. Acad. Sci. Paris **36**, 585–587 (1853)
4. Note sur la théorie générale des surface. C. R. Acad. Sci. Paris **37**, 529–532 (1853)
5. Observations sur les surfaces minima. C. R. Acad. Sci. Paris **41**, 1057–1058 (1855)
6. Nouvelles remarques sur les surfaces à aire minima. C. R. Acad. Sci. Paris **42**, 532–535 (1856)
7. Mémoire sur l'emploi d'un nouveau système de variables dans l'étude des surfaces courbes. J. Math. Pures Appl. (2), 153–266 (1860)
8. Sur la détermination des fonctions arbitraires qui entrent dans l'équations intégrale des surfaces à aire minima. C. R. Acad. Sci. Paris **40**, 1107–1110 (1865)
9. Sur la surface réglée minima. Bull. Sci. Math. (2) **9**, 14–15 (1885)

Brakke, K.A.

1. Minimal surfaces, corners, and wires. J. Geom. Anal. **2**, 11–36 (1992)
2. The surface evolver. Expo. Math. **1**, 141–165 (1992)

Brézis, H.R., Coron, M.
1. Sur la conjecture de Rellich pour les surfaces à courbure moyenne prescribe. C. R. Acad. Sci. Paris, Ser. I **295**, 615–618 (1982)
2. Large solutions for harmonic maps in two dimensions. Commun. Math. Phys. **92**, 203–215 (1983)
3. Multiple solutions of H-systems and Rellich's conjecture. Commun. Pure Appl. Math. **37**, 149–187 (1984)
4. Convergence of solutions of H-systems or how to blow bubbles. Arch. Ration. Mech. Anal. **89**(1), 21–56 (1985)

Brézis, H.R., Kinderlehrer, D.
1. The smoothness of solutions to nonlinear variational inequalities. Indiana Univ. Math. J. **23**, 831–844 (1974)

Burago, Y.D.
1. Note on the isoperimetric inequality on two dimensional surfaces. Sib. Mat. Zh. **14**, 666–668 (1973)

Burago, Y.D., Zalgaller, V.A.
1. Geometric inequalities. Grundlehren Math. Wiss. **285**. Springer, Berlin, 1988

Bürger, W., Kuwert, E.
1. Area-minimizing disks with free boundary and prescribed enclosed volume. J. Reine Angew. Math. **621**, 1–27 (2008)

Caffarelli, L.A., Nirenberg, L., Spruck, J.
1. On a form of Bernstein's theorem. In: Analyse mathématique et applications, pp. 55–56. Gauthier-Villars, Paris, 1988

Caffarelli, L.A., Rivière, N.M.
1. Smoothness and analyticity of free boundaries in variational inequalities. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **3**, 289–310 (1976)

Calabi, E.
1. Minimal immersions of surfaces in euclidean space. J. Differ. Geom. **1**, 111–125 (1967)
2. Quelques applications de l'analyse complex aux surfaces d'aire minima. In: Rossi, H. (ed.) Topics in complex manifolds. Les Presses de l'Université de Montréal, Montréal, 1968
3. Examples of Bernstein problems for some nonlinear equations. In: Global analysis. Proc. Symp. Pure Math., pp. 223–230. Am. Math. Soc., Providence, 1968

Callahan, M.J., Hoffman, D.A., Hoffman, J.T.
1. Computer graphics tools for the study of minimal surfaces. Commun. ACM **31**, 648–661 (1988)

Carathéodory, C.
1. Über die Begrenzung einfach zusammenhängender Gebiete. Math. Ann. **73**, 323–370 (1913)
2. Über die gegenseitige Beziehung der Ränder bei der konformen Abbildung des Inneren einer Jordankurve auf einen Kreis. Math. Ann. **73**, 305–320 (1913)
3. Variationsrechnung und partielle Differentialgleichungen erster Ordnung. Teubner, Leipzig, 1935
4. Conformal representation. Cambridge University Press, Cambridge, 1952
5. Theory of functions of a complex variable, Vols. 1 and 2. Chelsea, New York, 1954

Carleman, T.
1. Über eine isoperimetrische Aufgabe und ihre physikalischen Anwendungen. Math. Z. **3**, 1–7 (1919)

2. Sur la répresentation conforme des domaines multiplement connexes. C. R. Acad. Sci. Paris **168**, 843–845 (1919)
3. Zur Theorie der Minimalflächen. Math. Z. **9**, 154–160 (1921)

Chavel, I.
1. On A. Hurwitz' method in isoperimetric inequalities. Proc. Am. Math. Soc. **71**, 275–279 (1978)

Chen, C.C.
1. A characterization of the catenoid. An. Acad. Bras. Ciênc. **51**, 1–3 (1979)
2. Complete minimal surfaces with total curvature -2π. Bull. Braz. Math. Soc. **10**, 71–76 (1979)
3. Elliptic functions and non-existence of complete minimal surfaces of certain type. Proc. Am. Math. Soc. **79**, 289–293 (1980)
4. Total curvature and topological structure of complete minimal surfaces. IME-USP **8**, 1980
5. On the image of the generalized Gauss map of a complete minimal surface in $\mathbb{R}^4$. Pac. J. Math. **102**, 9–14 (1982)
6. The generalized curvature ellipses and minimal surfaces. Bull. Inst. Math. Acad. Sin. **11**, 329–336 (1983)

Chen, Y.-W.
1. Branch points, poles and planar points of minimal surfaces in $\mathbb{R}^3$. Ann. Math. **49**, 790–806 (1948)
2. Existence of minimal surfaces with a pole at infinity and condition of transversality on the surface of a cylinder. Trans. Am. Math. Soc. **65**, 331–347 (1949)
3. Discontinuity and representations of minimal surface solutions. In: Proc. Conf. on Minimal Surface Solutions, pp. 115–138. University of Maryland Press, College Park, 1956

Chern, S.S.
1. Topics in differential geometry. The Institute for Advanced Study, Princeton, 1951
2. An elementary proof of the existence of isothermal parameters on a surface. Proc. Am. Math. Soc. **6**, 771–782 (1955)
3. Differentiable manifolds. Lecture Notes, University of Chicago, 1959
4. On the curvatures of a piece of hypersurface in Euclidean space. Abh. Math. Semin. Univ. Hamb. **29**, 77–91 (1965)
5. Minimal surfaces in a Euclidean space of N dimensions. In: Differential and combinatorial topology, a symposium in honor of Marston Morse, pp. 187–198. Princeton University Press, Princeton, 1965
6. Simple proofs of two theorems on minimal surfaces. Enseign. Math. **15**, 53–61 (1969)
7. Differential geometry; its past and its future. In: Actes, congrès Intern. Math. **I**, pp. 41–53, 1970
8. On the minimal immersions of the two-sphere in a space of constant curvature. In: Problems in analysis, pp. 27–40. Princeton University Press, Princeton, 1970

Chern, S.S., Hartman, P., Wintner, A.
1. On isothermic coordinates. Comment. Math. Helv. **28**, 301–309 (1954)

Cheung, L.F.
1. Communications to the authors.
2. Geometric properties of non-compact stable constant mean curvature surfaces. Thesis. Mathematisches Institut der Universität Bonn, Bonn, 1990

Chicco, M.
1. Principio di massimo forte per sottosoluzioni di equazioni ellittiche di tipo variazionale. Boll. Unione Mat. Ital. (3) **22**, 368–372 (1967)

Choe, J.

1. The isoperimetric inequality for a minimal surface with radially connected boundary. Preprint No. 00908-89, Math. Sci. Res. Inst. Berkeley, 1988
2. Index, vision number, and stability of complete minimal surfaces. Preprint No. 02008-89, Math. Sci. Res. Inst. Berkeley, 1988
3. On the existence and regularity of fundamental domains with least boundary area. J. Differ. Geom. **29**, 623–663 (1989)
4. On the analytic reflection of a minimal surface. Preprint No. 102, SFB 256, Univ. Bonn, 1990
5. The isoperimetric inequality for a minimal surface with radially connected boundary. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **17**, 583–593 (1990)
6. The isoperimetric inequality for minimal surfaces in a Riemannian manifold. J. Reine Angew. Math. **506**, 205–214 (1999)
7. Isoperimetric inequalities of minimal submanifolds; cf. GTMS (2005)

Clarenz, U.

1. Sätze über Extremalen zu parametrischen Funktionalen. Bonner Math. Schriften **322**. Mathematisches Institut der Universität Bonn, Bonn, 1999
2. Enclosure theorems for extremals of elliptic parametric functionals. Calc. Var. Partial Differ. Equ. **15**, 313–324 (2002)

Clarenz, U., von der Mosel, H.

1. Compactness theorem and an isoperimetric inequality for critical points of elliptic parametric functionals. Calc. Var. Partial Differ. Equ. **12**, 85–107 (2000)

Cohn-Vossen, S.

1. Kürzeste Wege and Totalkrümmung auf Flächen. Compos. Math. **2**, 69–133 (1935)

Courant, R.

1. Über direkte Methoden bei Variations- und Randwertproblemen. Jahresber. Dtsch. Math.-Ver. **97**, 90–117 (1925)
2. Über direkte Methoden in der Variationsrechnung und über verwandte Fragen. Math. Ann. **97**, 711–736 (1927)
3. Neue Bemerkungen zum Dirichletschen Prinzip. J. Reine Angew. Math. **165**, 248–256 (1931)
4. On the problem of Plateau. Proc. Natl. Acad. Sci. USA **22**, 367–372 (1936)
5. Plateau's problem and Dirichlet's Principle. Ann. Math. **38**, 679–724 (1937)
6. The existence of a minimal surface of least area bounded by prescribed Jordan arcs and prescribed surfaces. Proc. Natl. Acad. Sci. USA **24**, 97–101 (1938)
7. Remarks on Plateau's and Douglas' problem. Proc. Natl. Acad. Sci. USA **24**, 519–523 (1938)
8. Conformal mapping of multiply connected domains. Duke Math. J. **5**, 314–823 (1939)
9. The existence of minimal surfaces of given topological structure under prescribed boundary conditions. Acta Math. **72**, 51–98 (1940)
10. Soap film experiments with minimal surfaces. Am. Math. Mon. **47**, 168–174 (1940)
11. On a generalized form of Plateau's problem. Trans. Am. Math. Soc. **50**, 40–47 (1941)
12. Critical points and unstable minimal surfaces. Proc. Natl. Acad. Sci. USA **27**, 51–57 (1941)
13. On the first variation of the Dirichlet–Douglas integral and on the method of gradients. Proc. Natl. Acad. Sci. USA **27**, 242–248 (1941)
14. On Plateau's problem with free boundaries. Proc. Natl. Acad. Sci. USA **31**, 242–246 (1945)
15. Dirichlet's principle, conformal mapping, and minimal surfaces. Interscience, New York, 1950

Courant, R., Davids, N.

1. Minimal surfaces spanning closed manifolds. Proc. Natl. Acad. Sci. USA **26**, 194–199 (1940)

Courant, R., Hilbert, D.

1. Methoden der mathematischen Physik, vol. 2. Springer, Berlin, 1937
2. Methods of mathematical physics I. Interscience, New York, 1953
3. Methods of mathematical physics II. Interscience, New York, 1962

Courant, R., Hurwitz, A.

1. Funktionentheorie, 1st edn. Springer, Berlin, 1922 and 1929 (third edition)

Courant, R., Manel, B., Shiffman, M.

1. A general theorem on conformal mapping of multiply connected domains. Proc. Natl. Acad. Sci. USA **26**, 503–507 (1940)

Courant, R., Robbins, H.

1. What is mathematics? Oxford University Press, London, 1941

Croke, C.B.

1. Some isoperimetric inequalities and eigenvalue estimates. Ann. Sci. Ecole Norm. Super. **13**, 419–435 (1980)
2. A sharp four dimensional isoperimetric inequality. Comment. Math. Helv. **59**, 187–192 (1984)

Croke, C.B., Weinstein, A.

1. Closed curves on convex hypersurfaces and periods of nonlinear oscillations. Invent. Math. **64**, 199–202 (1981)

Davids, N.

1. Minimal surfaces spanning closed manifolds and having prescribed topological position. Am. J. Math. **64**, 348–362 (1942)

De Giorgi, E.

1. Frontiere orientate di misura minima. Seminario Mat. Scuola Norm. Sup. Pisa 1–56, 1961
2. Una extensione del teorema di Bernstein. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **19**, 79–85 (1965)

De Giorgi, E., Stampacchia, G.

1. Sulle singolarità eliminabili delle ipersuperficie minimali. Atti Accad. Naz. Lincei, VIII Ser., Rend. Cl. Sci. Fis. Mat. Nat. **38**, 352–357 (1965)

Delaunay, C.

1. Sur la surface de revolution dont la courbure moyenne est constante. J. Math. Pures Appl. **6**, 309–315 (1841)

Desideri, L.

1. Desideri, L. Problème de Plateau, équations fuchsiennes et problème de Riemann-Hilbert. Thèse de Doctorat, Université Paris VII, 2009

Dierkes, U.

1. Singuläre Variationsprobleme und Hindernisprobleme. Bonner Math. Schriften **155**. Mathematisches Institut der Universität Bonn, Bonn, 1984
2. Plateau's problem for surfaces of prescribed mean curvature in given regions. Manuscr. Math. **56**, 313–331 (1986)
3. An inclusion principle for a two-dimensional obstacle problem. Preprint No. 772, SFB 72, Bonn

4. A geometric maximum principle, Plateau's problem for surfaces of prescribed mean curvature, and the two-dimensional analogue of the catenary. In: Hildebrandt, S., Leis, R. (eds.) Partial differential equations and calculus of variations. Lect. Notes Math. **1357**, pp. 116–141. Springer, Berlin, 1988
5. Minimal hypercones and $C^{0,1/2}$-minimizers for a singular variational problem. Indiana Univ. Math. J. **37**, 841–863 (1988)
6. A geometric maximum principle for surfaces of prescribed mean curvature in Riemannian manifolds. Z. Anal. Ihre Anwend. **8**(2), 97–102 (1989)
7. Boundary regularity for solutions of a singular variational problem with linear growth. Arch. Ration. Mech. Anal. **105**(4), 285–298 (1989)
8. A classification of minimal cones in $\mathbb{R}^n \times \mathbb{R}^+$ and a counterexample to interior regularity of energy minimizing functions. Manuscr. Math. **63**, 173–192 (1989)
9. Singuläre Lösungen gewisser mehrdimensionaler Variationsprobleme. Habilitationsschrift, Saarbrücken, 1989
10. On the non-existence of energy stable minimal cones. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **7**, 589–601 (1990)
11. Maximum principles and nonexistence results for minimal submanifolds. Manuscr. Math. **69**, 203–218 (1990)
12. A Bernstein result for energy minimizing hypersurfaces. Calc. Var. Partial Differ. Equ. **1**, 37–54 (1993)
13. Curvature estimates for minimal hypersurfaces in singular spaces. Invent. Math. **122**, 453–473 (1995)
14. Singular minimal surfaces. In: Hildebrandt, S., Karcher, H. (eds.) Geometric analysis and nonlinear partial differential equations, pp. 177–193. Springer, Berlin, 2003
15. On the regularity of solutions for a singular variational problem. Math. Z. **225**, 657–670 (1997)

Dierkes, U., Hildebrandt, S., Küster, A., Wohlrab, O.

1. Minimal surfaces I, II. Grundlehren der math. Wiss. **295** & **296**. Springer, Berlin, 1992

Dierkes, U., Hildebrandt, S., Lewy, H.

1. On the analyticity of minimal surfaces at movable boundaries of prescribed length. J. Reine Angew. Math. **379**, 100–114 (1987)

Dierkes, U., Huisken, G.

1. The N-dimensional analogue of the catenary: existence and non-existence. Pac. J. Math. **141**, 47–54 (1990)
2. The N-dimensional analogue of the catenary: prescribed area. In: Jost, J. (ed.) Calculus of variations and geometric analysis, pp. 1–13. International Press, New York, 1996

Dierkes U., Schwab, D.

1. Maximum principles for submanifolds of arbitrary codimension and bounded mean curvature. Calc. Var. Partial Differ. Equ. **22**, 173–184 (2005)

Dinghas, A.

1. Über Minimalabbildungen von Gebieten der komplexen Ebene in einen Hilbert-Raum. Jahresber. Dtsch. Math.-Ver. **67**, 43–48 (1964)
2. Über einen allgemeinen Verzerrungssatz für beschränkte Minimalflächen. Jahresber. Dtsch. Math.-Ver. **69**, 152–160 (1967)

do Carmo, M.

1. Differential geometry of curves and surfaces. Prentice-Hall, Englewood Cliffs, 1976
2. Stability of minimal submanifolds. In: Global differential geometry and global analysis. Lect. Notes Math. **838**. Springer, Berlin, 1981
3. Riemannian geometry. Birkhäuser, Boston, 1992

Dombrowski, P.

1. Krümmungsgrößen gleichungsdefinierter Untermannigfaltigkeiten Riemannscher Mannigfaltigkeiten. Math. Nachr. **38**, 133–180 (1968)

2. 150 years after Gauss, “Disquisitiones generales circa superficies curvas”. Astérisque **62**, 1979 (cf. also: Differentialgeometrie—150 Jahre nach den “Disquisitiones generales circa superficies curvas” von Carl Friedrich Gauß. Abh. Braunschweig. Wiss. Ges. **27**, 63–101 (1977))
3. Differentialgeometrie. In: Festschrift zum Jubiläum der Dtsch. Math. Ver., pp. 323–360. Vieweg, Braunschweig, 1990

Douglas, J.
1. Reduction of the problem of Plateau to an integral equation. Bull. Am. Math. Soc. **33**, 143–144 (1927)
2. Reduction to integral equations of the problem of Plateau for the case of two contours. Bull. Am. Math. Soc. **33**, 259 (1927)
3. Reduction of the problem of Plateau to the minimization of a certain functional. Bull. Am. Math. Soc. **34**, 405 (1928)
4. A method of numerical solution of the problem of Plateau. Ann. Math. **29**, 180–188 (1928)
5. Solution of the problem of Plateau. Bull. Am. Math. Soc. **35**, 292 (1929)
6. Various forms of the fundamental functional in the problem of Plateau and its relation to the area functional. Bull. Am. Math. Soc. **36**, 49–50 (1930)
7. Solution of the problem of Plateau for any rectifiable contour in n-dimensional euclidean space. Bull. Am. Math. Soc. **36**, 189 (1930)
8. Solution of the problem of Plateau when the contour is an arbitrary Jordan curve in n-dimensional euclidean space. I. Bull. Am. Math. Soc. **36**, 189–190 (1930); II, Bull. Am. Math. Soc. **36**, 190 (1930)
9. The problem of Plateau and the theorem of Osgood–Carathéodory on the conformal mapping of Jordan regions. Bull. Am. Math. Soc. **36**, 190–191 (1930)
10. A general formulation of the problem of Plateau. Bull. Am. Math. Soc. **36**, 50 (1930)
11. The mapping theorem of Koebe and the problem of Plateau. J. Math. Phys. **10**, 106–130 (1930–31)
12. Solution of the problem of Plateau. Trans. Am. Math. Soc. **33**, 263–321 (1931)
13. The problem of Plateau for two contours. J. Math. Phys. **10**, 315–359 (1931)
14. The least area property of the minimal surface determined by an arbitrary Jordan contour. Proc. Natl. Acad. Sci. USA **17**, 211–216 (1931)
15. One-sided minimal surfaces with a given boundary. Trans. Am. Math. Soc. **34**, 731–756 (1932)
16. Seven theorems in the problem of Plateau. Proc. Natl. Acad. Sci. USA **18**, 83–85 (1932)
17. The problem of Plateau. Bull. Am. Math. Soc. **39**, 227–251 (1933)
18. An analytic closed space curve which bounds no orientable surface of finite area. Proc. Natl. Acad. Sci. USA **19**, 448–451 (1933)
19. A Jordan space curve which bounds no finite simply connected area. Proc. Natl. Acad. Sci. USA **19**, 269–271 (1933)
20. Crescent-shaped minimal surfaces. Proc. Natl. Acad. Sci. USA **19**, 192–199 (1933)
21. A Jordan curve no arc of which can form part of a contour which bounds a finite area. Ann. Math. **35**, 100–104 (1934)
22. Minimal surfaces general topological structure with any finite number of assigned boundaries. J. Math. Phys. **15**, 105–123 (1936)
23. Some new results in the problem of Plateau. J. Math. Phys. **15**, 55–64 (1936)
24. Remarks on Riemann's doctoral dissertation. Proc. Natl. Acad. Sci. USA **24**, 297–302 (1938)
25. Minimal surfaces of higher topological structure. Proc. Natl. Acad. Sci. USA **24**, 343–353 (1938)
26. Green's function and the problem of Plateau. Proc. Natl. Acad. Sci. USA **24**, 353–360 (1938)

27. The most general form of the problem of Plateau. Proc. Natl. Acad. Sci. USA **24**, 360–364 (1938)
28. Minimal surfaces of higher topological structure. Ann. Math. **40**, 205–298 (1939)
29. The higher topological form of Plateau's problem. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **8**, 195–218 (1939)
30. Green's function and the problem of Plateau. Am. J. Math. **61**, 545–589 (1939)
31. The most general form of the problem of Plateau. Am. J. Math. **61**, 590–608 (1939)

Douglas, J., Franklin, P.
1. A step-polygon of a denumerable infinity of sides which bounds no finite area. Proc. Natl. Acad. Sci. USA **19**, 188–191 (1933)

Dubrovin, B.A., Fomenko, A.T., Novikov, S.P.
1. Modern geometry—methods and applications I, II. Springer, Berlin, 1984 and 1985

Duzaar, F.
1. Ein teilweise freies Randwertproblem für Ströme vorgeschriebener mittlerer Krümmung. Habilitationsschrift, Düsseldorf (1990)
2. Existence and regularity of hypersurfaces with prescribed mean curvature and a free boundary. J. Reine Angew. Math. **457**, 23–43 (1994)
3. On the existence of surfaces with prescribed mean curvature and boundary in higher dimensions. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **10**, 191–214 (1993)
4. Boundary regularity for area minimizing currents with prescribed volume. J. Geom. Anal. **7**, 585–592 (1997)

Duzaar, F., Fuchs, M.
1. On the existence of integral currents with prescribed mean curvature. Manuscr. Math. **67**, 41–67 (1990)
2. On the existence of integral currents with constant mean curvature. Rend. Semin. Mat. Univ. Padova **85**, 79–103 (1991)
3. Einige Bemerkungen über die Existenz orientierter Mannigfaltigkeiten mit vorgeschriebener mittlerer Krümmungsform. Z. Anal. Ihre Anwend. **10**, 525–534 (1991)
4. A general existence theorem for integral currents with prescribed mean curvature form. Boll. Unione Mat. Ital. **6-B**, 901–912 (1992)

Duzaar, F., Kuwert, E.
1. Minimization of conformally invariant energies in homotopy classes. Calc. Var. Partial Differ. Equ. **6**, 285–313 (1998)

Duzaar, F., Steffen, K.
1. Area minimizing hypersurfaces with prescribed volume and boundary. Math. Z. **209**, 581–618 (1992)
2. λ minimizing currents. Manuscr. Math. **80**, 403–447 (1993)
3. Boundary regularity for minimizing currents with prescribed mean curvature. Calc. Var. Partial Differ. Equ. **1**, 355–406 (1993)
4. Comparison principles for hypersurfaces of prescribed mean curvature. J. Reine Angew. Math. **457**, 71–83 (1994)
5. Existence of hypersurfaces with prescribed mean curvature in Riemannian manifolds. Indiana Univ. Math. J. **45**, 1045–1093 (1996)
6. The Plateau problem for parametric surfaces with prescribed mean curvature. In: Jost, J. (ed.) Geometric analysis and the calculus of variations, pp. 13–70. International Press, Cambridge, 1996
7. Parametric surfaces of least H-energy in a Riemannian manifold. Math. Ann. **314**, 197–244 (1999)

Dziuk, G.

1. Das Verhalten von Lösungen semilinearer elliptischer Systeme an Ecken eines Gebietes. Math. Z. **159**, 89–100 (1978)
2. Das Verhalten von Flächen beschränkter mittlerer Krümmung an C^1-Randkurven. Nachr. Akad. Wiss. Gött. II. Math.-Phys. Kl., 21–28 (1979)
3. On the boundary behavior of partially free minimal surfaces. Manuscr. Math. **35**, 105–123 (1981)
4. Über quasilineare elliptische Systeme mit isothermen Parametern an Ecken der Randkurve. Analysis **1**, 63–81 (1981)
5. Über die Stetigkeit teilweise freier Minimalflächen. Manuscr. Math. **36**, 241–251 (1981)
6. Über die Glattheit des freien Randes bei Minimalflächen. Habilitationsschrift, Aachen, 1982
7. C^2-Regularity for partially free minimal surfaces. Math. Z. **189**, 71–79 (1985)
8. On the length of the free boundary of a minimal surface. Control Cybern. **14**, 161–170 (1985)
9. Finite elements for the Beltrami operator on arbitrary surfaces. In: Hildebrandt, S., Leis, R. (eds.) Partial differential equations and calculus of variations. Lect. Notes Math. **1357**, pp. 142–155. Springer, Berlin, 1988
10. An algorithm for evolutionary surfaces. Preprint, SFB 256, Report No. 5, Bonn, 1989
11. Branch points of polygonally bounded minimal surfaces. Analysis **5**, 275–286 (1985)

Ecker, K.

1. Area-minimizing integral currents with movable boundary parts of prescribed mass. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **6**, 261–293 (1989)
2. Local techniques for mean curvature flow. In: Proc. of Conference on Theoretical and Numerical Aspects of Geometric Variational Problems. Proc. Centre Math. Appl. Aust. Nat. Univ. **26**, pp. 107–119. Australian National University Press, Canberra, 1991
3. Regularity theory for mean curvature flow. Birkhäuser, Basel, 2004

Ecker, K., Huisken, G.

1. A Bernstein result for minimal graphs of controlled growth. J. Differ. Geom. **31**, 337–400 (1990)
2. Interior curvature estimates for hypersurfaces of prescribed mean curvature. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **6**, 251–260 (1989)

Eells, J.

1. Minimal graphs. Manuscr. Math. **28**, 101–108 (1979)

Eells, J., Lemaire, L.

1. A report on harmonic maps. Bull. Lond. Math. Soc. **10**, 1–68 (1978)
2. On the construction of harmonic and holomorphic maps between surfaces. Math. Ann. **252**, 27–52 (1980)
3. Deformations of metrics and associated harmonic maps. Proc. Indian Acad. Sci. **90**, 33–45 (1981)
4. Selected topics in harmonic maps. CBMS–NSF Regional Conf. Ser. Appl. Math. **50**. SIAM, Philadelphia, 1983
5. Another report on harmonic maps. Bull. Lond. Math. Soc. **20**, 385–524 (1988)

Eells, J., Sampson, J.H.

1. Harmonic mappings of Riemannian manifolds. Am. J. Math. **86**, 109–160 (1964)

Eisenhart, L.P.

1. A treatise on the differential geometry of curves and surfaces. Ginn, Boston, 1909
2. An introduction to differential geometry. Princeton University Press, Princeton, 1947
3. Riemannian geometry, 5th edn. Princeton University Press, Princeton, 1964

Ekholm, T., White, B., Wienholtz, D.
1. Embeddedness of minimal surfaces with total boundary curvature at most 4π. Ann. Math. **155**, 209–234 (2002)

Eschenburg, J.H.
1. Maximum principle for hypersurfaces. Manuscr. Math. **64**, 55–75 (1989)

Eschenburg, J.H., Jost, J.
1. Differentialgeometrie und Minimalflächen, 256 pp. Springer, Berlin, 2007

Eschenburg, J.H., Tribuzy, R.
1. Branch points of conformal mappings of surfaces. Math. Ann. **279**, 621–633 (1988)

Euler, L.
1. Recherches sur la courbure de surfaces. Mém. Acad. Sci. Berl. **16**, 119–143 (1767)
2. De solidis quorum superficiem in planum explicare licet. Novi Comment. Acad. Sci. Petropol **16**, 3–34 (1772)
3. (i) De repraesentatione superficiei sphaericae super plano, (ii) De projectione geographica superficiei sphaericae. Acta Acad. Sci. Petropol. 1777: **I**, 107–132 & 133–142 (1778)
4. Commentationes geometricae. Opera omnia, Series prima, vols. 28 and 29, Lausanne 1955 and 1956
5. Methodus inveniendi lineas curvas maximi minimive proprietate gaudentes sive solutio problematis isoperimetrici latissimo sensu accepti. Lausannae et Genevae, Bousquet et Socios, 1744 (Opera omnia, Series I, vol. 24)
6. De insigni paradoxo quod in analysi maximorum et minimorum occurrit. Mém. Acad. Imp. Sci. St.-Pétersbg. **3**, 16–25 (1811) (Opera omnia, Ser. I, vol. 25, 286–292)

Federer, H.
1. Geometric measure theory. Grundlehren Math. Wiss. Springer, Berlin, 1969
2. Some theorems on integral currents. Trans. Am. Math. Soc. **117**, 43–67 (1965)
3. The singular sets of area minimizing rectifiable currents with codimension one and of area minimizing flat chains modulo two with arbitrary codimension. Bull. Am. Math. Soc. **76**, 767–771 (1970)

Federer, H., Fleming, W.H.
1. Normal and integral currents. Ann. Math. **72**, 458–520 (1960)

Feinberg, J.M.
1. The isoperimetric inequality for doubly-connected minimal surfaces in $\mathbb{R}^3$. J. Anal. Math. **32**, 249–278 (1977)
2. Some Wirtinger-like inequalities. SIAM J. Math. Anal. **10**, 1258–1271 (1979)

Ferus, D., Karcher, H.
1. , Karcher, H. Non rotational minimal spheres and minimizing cones. Comment. Math. Helv. **60**, 247–269 (1985)

Fiala, F.
1. Le problème des isoperimètres sur les surfaces ouvertes à courbure positive. Comment. Math. Helv. **13**, 293–346 (1941)

Finn, R.
1. Isolated singularities of solutions of non-linear partial differential equations. Trans. Am. Math. Soc. **75**, 383–404 (1953)
2. A property of minimal surfaces. Proc. Natl. Acad. Sci. USA **39**, 197–201 (1953)
3. On equations of minimal surface type. Ann. Math. (2) **60**, 397–416 (1954)
4. On a problem of minimal surface type, with application to elliptic partial differential equations. Arch. Ration. Mech. Anal. **3**, 789–799 (1954)
5. Growth properties of solutions of non-linear elliptic equations. Commun. Pure Appl. Math. **9**, 415–423 (1956)

6. On partial differential equations (whose solutions admit no isolated singularities). Scr. Math. **26**, 107–115 (1961)
7. Remarks on my paper "On equations of minimal surface type". Ann. Math. (2) **80**, 158–159 (1964)
8. New estimates for equations of minimal surface type. Arch. Ration. Mech. Anal. **14**, 337–375 (1963)
9. Remarks relevant to minimal surfaces and to surfaces of prescribed mean curvature. J. Anal. Math. **14**, 139–160 (1965)
10. On a class of conformal metrics, with application to differential geometry in the large. Comment. Math. Helv. **40**, 1–30 (1965)
11. Equilibrium capillary surfaces. Springer, New York, 1986
12. The Gauß curvature of an H-graph. Nachr. Ges. Wiss. Gött., Math.-Phys.-Kl. **2** (1987)

Finn, R., Osserman, R.

1. On the Gauss curvature of non-parametric minimal surfaces. J. Anal. Math. **12**, 351–364 (1964)

Frehse, J.

1. On the regularity of the solution of a second order variational inequality. Boll. Unione Mat. Ital. (4) **6**, 312–315 (1972)
2. Two dimensional variational problems with thin obstacles. Math. Z. **143**, 279–288 (1975)
3. On Signorini's problem and variational problems with thin obstacles. Ann. Sc. Norm. Super. Pisa, Cl. Sci., Ser. IV **4**, 343–363 (1977)
4. Un problème variationnel bidimensionnel possédant des extremales bornées et discontinues. C. R. Acad. Sci. Paris, Sér. A **289**, 751–753 (1979)

Gage, M.

1. A proof of Gehring's linked spheres conjecture. Duke Math. J. **47**, 615–620 (1980)

Galilei, G.

1. Discorsi e dimostrazioni matematiche intorno à due nuove scienze. Elsevier, Leyden, 1638

Galle, A.

1. Über die geodätischen Arbeiten von Gauß. In: Gauß, Werke, Bd. 11.2, 165 pp. Akad. Wiss. Göttingen (1924–1929)

Gallot, S.

1. Isoperimetric inequalities based on integral norms of Ricci curvature. Astérisque **157–158**, 191–216 (1988)
2. Inégalités isopérimétriques et analytiques sur les variétés Riemanniennes. Astérisque **163–164**, 31–91 (1988)

Garnier, R.

1. Solution du problème de Riemann pour les systèmes différentiels linéaires du second ordre. Ann. Sci. Ecole Norm. Super. (3) **43**, 177–307 (1926)
2. Le problème de Plateau. Ann. Sci. Ecole Norm. Super. (3) **45**, 53–144 (1928)
3. Sur une théorème de Schwarz. Comment. Math. Helv. **25**, 140–172 (1951)
4. Sur le problème de Plateau pour un quadrilatère variable qui peut acquérir un point double. Ann. Mat. Pura Appl. (4) **58**, 1–34 (1962)
5. Sur le problème de Plateau pour les quadrilatères gauches ayant un sommet à l'infini. J. Math. Pures Appl. (9) **41**, 241–271 (1962)

Garofalo, N., Nhieu, D.-M.

1. Isoperimetric and Sobolev inequalities for Carnot–Carathéodory spaces and the existence of minimal surfaces. Commun. Pure Appl. Math. **49**, 1081–1144 (1996)

Gauß, C.F.
1. Allgemeine Auflösung der Aufgabe, die Theile einer gegebnen Fläche auf einer andern gegebnen Fläche so abzubilden, daß die Abbildung dem Abgebildeten in den kleinsten Theilen ähnlich wird. Astronomische Abhandlungen herausgeg. von H.C. Schumacher, Drittes Heft, Altona (1825)
2. Werke, Band 4 (Wahrscheinlichkeitsrechnung und Geometrie). Band 8 (Nachträge zu Band 1−4), Akad. Wiss. Göttingen, 1880 und 1900
3. Disquisitiones generales circa superficies curvas. Gött. Nachr. **6**, 99–146 (1828). German Translation: Allgemeine Flächentheorie. Herausgeg. von A. Wangerin, Ostwald's Klassiker, Engelmann, Leipzig, 1905 (cf. also Dombrowski [2], and General investigations of curved surfaces. Raven Press, New York, 1965)

Gergonne, J.D.
1. Questions proposées/résolues. Ann. Math. Pure Appl. **7**, 68, 99–100, **156**, 143–147 (1816)

Gerhardt, C.
1. Regularity of solutions of nonlinear variational inequalities. Arch. Ration. Mech. Anal. **52**, 389–393 (1973)

Gericke, H.
1. Zur Geschichte des isoperimetrischen Problems. Math. Semesterber. **29**, 160–187 (1982)

Geveci, T.
1. On differentiability of minimal surfaces at a boundary point. Proc. Am. Math. Soc. **28**, 213–218 (1971)

Giaquinta, M.
1. Multiple integrals in the calculus of variations and nonlinear elliptic systems. Ann. Math. Stud. **105**. Princeton University Press, Princeton, 1983
2. On the Dirichlet problem for surfaces of prescribed mean curvature. Manuscr. Math. **12**, 73–86 (1974)

Giaquinta, M., Hildebrandt, S.
1. Calculus of variations, vols. I, II. Grundlehren Math. Wiss. **310** & **311**. Springer, Berlin, 1996, 2nd edn. 2004

Giaquinta, M., Martinazzi, L.
1. An introduction to the regularity theory for elliptic systems, harmonic maps and minimal graphs. Scuola Normale Superiore, Pisa, 2005

Giaquinta, M., Modica, G., Souček, J.
1. Cartesian currents in the calculus of variations, vols. I, II. Ergebnisse Math. Grenzgeb. **37** & **38**, 3rd edn. Springer, Berlin, 1998

Giaquinta, M., Pepe, L.
1. Esistenza e regolarità per il problema dell'area minima con ostacolo in n variabili. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **25**, 481–507 (1971)

Gilbarg, D., Trudinger, N.S.
1. Elliptic partial differential equations of second order. Grundlehren Math. Wiss. **224**. Springer, Berlin, 1977. 2nd edn. 1983

Giusti, E.
1. Superficie minime cartesiane con ostacoli discontinui. Arch. Ration. Mech. Anal. **40**, 251–267 (1971)
2. Nonparametric minimal surfaces with discontinuous and thin obstacles. Arch. Ration. Mech. Anal. **49**, 41–56 (1972)
3. Boundary behavior of non-parametric minimal surfaces. Indiana Univ. Math. J. **22**, 435–444 (1972)

4. Minimal surfaces and functions of bounded variation. Birkhäuser, Boston, 1984
5. Harmonic mappings and minimal immersions. Lect. Notes Math. **1161**. Springer, Berlin, 1985
6. On the regularity of the solution to a mixed boundary value problem for the non-homogeneous minimal surface equation. Boll. U. M. I. **11**, 349–374
7. Boundary value problems for non-parametric surfaces of prescribed mean curvature. Ann. Sc. Norm. Super. Pisa, Cl. Sci., Sér. 4 **3**, 501–548 (1976)

Glaeser, L.
1. The work of Frei Otto and his team 1955–1976. Information of the Institut für leichte Flächentragwerke (IL, Institute for Lightweight Structures), Stuttgart, 1978

Goldhorn, K.H.
1. Flächen beschränkter mittlerer Krümmung in einer dreidimensionalen Riemannschen Mannigfaltigkeit. Manuscr. Math. **8**, 189–207 (1973)

Goldhorn, K., Hildebrandt, S.
1. Zum Randverhalten der Lösungen gewisser zweidimensionaler Variationsprobleme mit freien Randbedingungen. Math. Z. **118**, 241–253 (1970)

Goldschmidt, B.
1. Determinatio superficiei minimae rotatione curvae data duo puncta jungentis circa datum axem ortae. Dissertation, Göttingen, 1831

Gonzales, E., Massari, U., Tamanini, I.
1. On the regularity of boundaries of sets minimizing perimeter with a volume constraint. Indiana Univ. Math. J. **32**, 25–37 (1983)

Gornik, K.
1. Zum Regularitätsverhalten parametrischer elliptischer Variationsprobleme mit Ungleichungen als Nebenbedingungen. Thesis. Bonner Math. Schriften **80**. Mathematisches Institut der Universität Bonn, Bonn, 1975
2. Ein Stetigkeitssatz für Variationsprobleme mit Ungleichungen als Nebenbedingung. Math. Z. **152**, 89–97 (1976)
3. Ein Differenzierbarkeitssatz für Lösungen zweidimensionaler Variationsprobleme mit "zweischaligem Hindernis". Arch. Ration. Mech. Anal. **64**, 127–135 (1977)

Greenberg, M.J.
1. Lectures on algebraic topology. Benjamin, New York, 1967

Greenberg, M., Harper, J.
1. Algebraic topology: a first course. Benjamin-Cummings, Reading, 1981

Gromoll, D., Meyer, W.
1. On differentiable functions with isolated critical points. Topology **8**, 361–369 (1969)

Gromoll, D., Klingenberg, W., Meyer, W.
1. Riemannsche Geometrie im Großen. Lect. Notes Math. **55**. Springer, Berlin, 1968

Gromov, M.
1. Filling Riemannian manifolds. J. Differ. Geom. **18**, 1–14 (1983)

Grüter, M.
1. Über die Regularität schwacher Lösungen des Systems $\Delta x = 2H(x)x_u \wedge x_v$. Dissertation, Düseldorf, 1979
2. Regularity of weak H-surfaces. J. Reine Angew. Math. **329**, 1–15 (1981)
3. A note on variational integrals which are conformally invariant. Preprint 502, SFB 72, Bonn, 1982
4. Conformally invariant variational integrals and the removability of isolated singularities. Manuscr. Math. **47**, 85–104 (1984)

5. Regularität von minimierenden Strömen bei einer freien Randwertbedingung. Habilitationsschrift, Düsseldorf, 1985
6. Regularity results for minimizing currents with a free boundary. J. Reine Angew. Math. **375/376**, 307–325 (1987)
7. Eine Bemerkung zur Regularität stationärer Punkte von konform invarianten Variationsintegralen. Manuscr. Math. **55**, 451–453 (1986)
8. The monotonicity formula in geometric measure theory, and an application to partially free boundary problems. In: Hildebrandt, S., Leis, R. (eds.) Partial differential equations and calculus of variations. Lect. Notes Math. **1357**, pp. 238–255. Springer, Berlin, 1988
9. Boundary regularity for solutions of a partitioning problem. Arch. Ration. Mech. Anal. **97**(3), 261–270 (1987)
10. Optimal regularity for codimension-one minimal surfaces with a free boundary. Manuscr. Math. **58**, 295–343 (1987)
11. Free boundaries in geometric measure theory and applications. In: Concus, P., Finn, R. (eds.) Variational methods for free surface interfaces. Springer, Berlin, 1987

Grüter, M., Hildebrandt, S., Nitsche, J.C.C.
1. On the boundary behavior of minimal surfaces with a free boundary which are not minima of the area. Manuscr. Math. **35**, 387–410 (1981)
2. Regularity for surfaces of constant mean curvature with free boundaries. Acta Math. **156**, 119–152 (1986)

Grüter, M., Jost, J.
1. On embedded minimal disks in convex bodies. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **3**, 345–390 (1986)
2. Allard-type regularity results for varifolds with free boundaries. Ann. Sc. Norm. Super. Pisa, Cl. Sci., Ser. IV **13**(1), 129–169 (1986)

Günther, P.
1. Einige Vergleichssätze über das Volumenelement eines Riemannschen Raumes. Publ. Math. (Debr.) **7**, 258–287 (1960)

Gulliver, R.
1. Existence of surfaces with prescribed mean curvature vector. Math. Z. **131**, 117–140 (1973)
2. Regularity of minimizing surfaces of prescribed mean curvature. Ann. Math. **97**, 275–305 (1973)
3. The Plateau problem for surfaces of prescribed mean curvature in a Riemannian manifold. J. Differ. Geom. **8**, 317–330 (1973)
4. Branched immersions of surfaces and reduction of topological type, I. Math. Z. **145**, 267–288 (1975)
5. Finiteness of the ramified set for branched immersions of surfaces. Pac. J. Math. **64**, 153–165 (1976)
6. Removability of singular points on surfaces of bounded mean curvature. J. Differ. Geom. **11**, 345–350 (1976)
7. Branched immersions of surfaces and reduction of topological type, II. Math. Ann. **230**, 25–48 (1977)
8. Representation of surfaces near a branched minimal surface. In: Minimal submanifolds and Geodesics, pp. 31–42. Kaigai Publications, Tokyo, 1978
9. Index and total curvature of complete minimal surfaces. Proc. Symp. Pure Math. **44**, 207–212 (1986)
10. Minimal surfaces of finite index in manifolds of positive scalar curvature. In: Hildebrandt, S., Kinderlehrer, D., Miranda, M. (eds.) Calculus of variations and partial differential equations. Lect. Notes Math. **1340**, pp. 115–122. Springer, Berlin, 1988

11. A minimal surface with an atypical boundary branch point. In: Differential geometry. Pitman Monographs Surveys Pure Appl. Math. **52**, pp. 211–228. Longman, Harlow, 1991
12. Convergence of minimal submanifolds to a singular variety. Preprint No. 76, SFB 256, Bonn, 1989
13. On the non-existence of a hypersurface of prescribed mean curvature with a given boundary. Manuscr. Math. **11**, 15–39 (1974)
14. Necessary conditions for submanifolds and currents with prescribed mean curvature vector. In: Bombieri, E. (ed.) Seminar on minimal submanifolds. Ann. Math. Stud. **103**. Princeton University Press, Princeton, 1983
15. Minimal surfaces of finite index in manifolds of positive scalar curvature. In: Hildebrandt, S., Kinderlehrer, D., Miranda, M. (eds.) Lect. Notes Math. **1340**, pp. 115–122. Springer, Berlin, 1988

Gulliver, R., Hildebrandt, S.

1. Boundary configurations spanning continua of minimal surfaces. Manuscr. Math. **54**, 323–347 (1986)

Gulliver, R., Lawson, H.B.

1. The structure of stable minimal surfaces near a singularity. Proc. Symp. Pure Math. **44**, 213–237 (1986)
2. The structure of stable minimal hypersurfaces near a singularity. Proc. Symp. Pure Math. **44**, 213–237 (1986)

Gulliver, R., Lesley, F.D.

1. On boundary branch points of minimizing surfaces. Arch. Ration. Mech. Anal. **52**, 20–25 (1973)

Gulliver, R., Osserman, R., Royden, H.L.

1. A theory of branched immersions of surfaces. Am. J. Math. **95**, 750–812 (1973)

Gulliver, R., Scott, P.

1. Least area surfaces can have excess triple points. Topology **26**, 345–359 (1987)

Gulliver, R.D., Spruck, J.

1. The Plateau problem for surfaces of prescribed mean curvature in a cylinder. Invent. Math. **13**, 169–178 (1971)
2. Existence theorems for parametric surfaces of prescribed mean curvature. Indiana Univ. Math. J. **22**, 445–472 (1972)
3. On embedded minimal surfaces. Ann. Math. **103**, 331–347 (1976), with a correction in Ann. Math. **109**, 407–412 (1979)
4. Surfaces of constant mean curvature which have a simple projection. Math. Z. **129**, 95–107 (1972)

Gulliver, R., Tomi, F.

1. On false branch points of incompressible branched immersions. Manuscr. Math. **63**, 293–302 (1989)

Hahn, J., Polthier, K.

1. Bilder aus der Differentialgeometrie. Kalender 1987, Computergraphiken. Vieweg, Braunschweig, 1987

Hall, P.

1. Topological properties of minimal surfaces. Thesis, Warwick, 1983
2. Two topological examples in minimal surfaces theory. J. Differ. Geom. **19**, 475–481 (1984)
3. On Sasaki's inequality for a branched minimal disc. Preprint, 1985

4. A Picard theorem with an application to minimal surfaces. Trans. Am. Math. Soc. **314**, 597–603 (1989); II. Trans. Am. Math. Soc. **325**, 597–603 (1991)

Hardt, R.
1. Topological properties of subanalytic sets. Trans. Am. Math. Soc. **211**, 57–70 (1975)
2. An introduction to geometric measure theory. Lecture Notes, Melbourne University, 1979

Hardt, R., Simon, L.
1. Boundary regularity and embedded minimal solutions for the oriented Plateau problem. Ann. Math. **110**, 439–486 (1979)

Hardy, G.H., Littlewood, J.E., Pólya, G.
1. Inequalities., 2nd edn. Cambridge University Press, Cambridge, 1952

Harth, F.P.
1. Minimalflächen mit freiem Rand in Riemannschen Mannigfaltigkeiten. Manuscr. Math. **7**, 35–54 (1972)
2. Zur Regularität von H-Flächen mit freiem Rand. Math. Z. **150**, 71–74 (1976)

Hartman, P.
1. On homotopic harmonic maps. Can. J. Math. **29**, 673–687 (1987)

Hartman, P., Wintner, A.
1. On the local behavior of solutions of nonparabolic partial differential equations. Am. J. Math. **75**, 449–476 (1953)

Harvey, R., Lawson, B.
1. On boundaries of complex analytic varieties. I: Ann. Math. (2) **102**, 233–290 (1975); II: Ann. Math. (2) **106**, 213–238 (1977)
2. Extending minimal varieties. Invent. Math. **28**, 209–226 (1975)
3. Calibrated foliations. Am. J. Math. **103**, 411–435 (1981)
4. Calibrated geometries. Acta Math. **148**, 47–157 (1982)

Heinz, E.
1. Über die Lösungen der Minimalflächengleichung. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl., 51–56 (1952)
2. Über die Existenz einer Fläche konstanter mittlerer Krümmung bei vorgegebener Berandung. Math. Ann. **127**, 258–287 (1954)
3. Über die Eindeutigkeit beim Cauchyschen Anfangswertproblem einer elliptischen Differentialgleichung 2, Ordnung. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl., 1–12 (1955)
4. On the existence problem for surfaces of constant mean curvature. Commun. Pure Appl. Math. **9**, 467–470 (1956)
5. On certain nonlinear elliptic differential equations and univalent mappings. J. Anal. Math. **5**, 197–272 (1956/57)
6. On one-to-one harmonic mappings. Pac. J. Math. **9**, 101–105 (1959)
7. Existence theorems for one-to-one mappings associated with elliptic systems of second order I. J. Anal. Math. **15**, 325–352 (1962)
8. Über das Nichtverschwinden der Funktionaldeterminante bei einer Klasse eineindeutiger Abbildungen. Math. Z. **105**, 87–89 (1968)
9. Zur Abschätzung der Funktionaldeterminante bei einer Klasse topologischer Abbildungen. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl., 183–197 (1968)
10. Ein Regularitätssatz für Flächen beschränkter mittlerer Krümmung. Nachr. Akad. Wiss. Gött. Math.-Phys. Kl., 2B **12**, 107–118 (1969)
11. An inequality of isoperimetric type for surfaces of constant mean curvature. Arch. Ration. Mech. Anal. **33**, 155–168 (1969)
12. On the nonexistence of a surface of constant mean curvature with finite area and prescribed rectifiable boundary. Arch. Ration. Mech. Anal. **35**, 249–252 (1969)

13. On surfaces of constant mean curvature with polygonal boundaries. Arch. Ration. Mech. Anal. **36**, 335–347 (1970)
14. Unstable surfaces of constant mean curvature. Arch. Ration. Mech. Anal. **38**, 257–267 (1970)
15. Über des Randverhalten quasilinearer elliptischer Systeme mit isothermen Parametern. Math. Z. **113**, 99–105 (1970)
16. Interior gradient estimates for surfaces $z = f(x, y)$ with prescribed mean curvature. J. Differ. Geom. **5**, 149–157 (1971)
17. Elementare Bemerkung zur isoperimetrischen Ungleichung im $\mathbb{R}^3$. Math. Z. **132**, 319–322 (1973)
18. Ein Regularitätssatz für schwache Lösungen nichtlinearer elliptischer Systeme. Nachr. Akad. Wiss Gött., Math.-Phys. Kl. 1–13 (1975)
19. Über die analytische Abhängigkeit der Lösungen eines linearen elliptischen Randwertproblems von Parametern. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl. 1–12 (1979)
20. Über eine Verallgemeinerung des Plateauschen Problems. Manuscr. Math. **28**, 81–88 (1979)
21. Ein mit der Theorie der Minimalflächen zusammenhängendes Variationsproblem. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl. 25–35 (1980)
22. Minimalflächen mit polygonalem Rand. Math. Z. **183**, 547–564 (1983)
23. Zum Marx-Shiffmanschen Variationsproblem. J. Reine Angew. Math. **344**, 196–200 (1983)
24. An estimate for the total number of branch points of quasi-minimal surfaces. Analysis **5**, 383–390 (1985)
25. Zum Plateauschen Problem für Polygone. In: Knobloch, E., Louhivaara, I.S., Winkler, J. (eds.) Zum Werk Leonhard Eulers. Vorträge des Euler-Kolloquiums im Mai 1983 in Berlin, pp. 197–204. Birkhäuser, Basel, 1984
26. Über Flächen mit eineindeutiger Projektion auf eine Ebene, deren Krümmungen durch Ungleichungen eingeschränkt sind. Math. Ann. **129**, 451–454 (1955)

Heinz, E., Hildebrandt, S.

1. Some remarks on minimal surfaces in Riemannian manifolds. Commun. Pure Appl. Math. **23**, 371–377 (1970)
2. On the number of branch points of surfaces of bounded mean curvature. J. Differ. Geom. **4**, 227–235 (1970)

Heinz, E., Tomi, F.

1. Zu einem Satz von S., Hildebrandt über das Randverhalten von Minimalflächen. Math. Z. **111**, 372–386 (1969)

Helein, F.

1. Régularité des applications faiblement harmoniques entre une surface et une varieté riemannienne. C. R. Acad. Sci. Paris, Ser. I **312**, 591–596 (1991)
2. Harmonic maps, conservation laws and moving frames. Cambridge University Press, Cambridge, 2002

Hewitt, E., Stromberg, K.

1. Real and abstract analysis. Springer, Berlin, 1965

Hilbert, D., Cohn-Vossen, S.

1. Anschauliche Geometrie. Springer, Berlin, 1932

Hicks, N.J.

1. Notes on differential geometry. Van Nostrand, Princeton, 1965

Hildebrandt, S.

1. Über das Randverhalten von Minimalflächen. Math. Ann. **165**, 1–18 (1966)

2. Über Minimalflächen mit freiem Rand. Math. Z. **95**, 1–19 (1967)
3. Boundary behavior of minimal surfaces. Arch. Ration. Mech. Anal. **35**, 47–82 (1969)
4. Über Flächen konstanter mittlerer Krümmung. Math. Z. **112**, 107–144 (1969)
5. Randwertprobleme für Flächen mit vorgeschriebener mittlerer Krümmung und Anwendungen auf die Kapillaritätstheorie, I. Fest vorgegebener Rand. Math. Z. **112**, 205–213 (1969)
6. Randwertprobleme für Flächen mit vorgeschriebener mittlerer Krümmung und Anwendungen auf die Kapillaritätstheorie, II. Freie Ränder. Arch. Ration. Mech. Anal. **39**, 275–293 (1970)
7. On the Plateau problem for surfaces of constant mean curvature. Commun. Pure Appl. Math. **23**, 97–114 (1970)
8. Einige Bemerkungen über Flächen beschränkter mittlerer Krümmung. Math. Z. **115**, 169–178 (1970)
9. Ein einfacher Beweis für die Regularität der Lösungen gewisser zweidimensionaler Variationsprobleme unter freien Randbedingungen. Math. Ann. **194**, 316–331 (1971)
10. Über einen neuen Existenzsatz für Flächen vorgeschriebener mittlerer Krümmung. Math. Z. **119**, 267–272 (1971)
11. Maximum principles for minimal surfaces and for surfaces of continuous mean curvature. Math. Z. **128**, 253–269 (1972)
12. On the regularity of solutions of two-dimensional variational problems with obstructions. Commun. Pure Appl. Math. **25**, 479–496 (1972)
13. Interior $C^{1+\alpha}$-regularity of solutions of two-dimensional variational problems with obstacles. Math. Z. **131**, 233–240 (1973)
14. Liouville's theorem for harmonic mappings and an approach to Bernstein theorems. In: Seminar on differential geometry, pp. 107–131. Princeton University Press, Princeton, 1982
15. Nonlinear elliptic systems and harmonic mappings. In: Proc. of the 1980 Beijing Symposium on Differential Geometry and Differential Equations **1**, pp. 481–615. Science Press, Beijing, 1982
16. Minimal surfaces with free boundaries. Miniconference on P.D.E., Canberra, C.M.A., A.N.U. Preprint, August 1985
17. Harmonic mappings of Riemannian manifolds. In: Giusti, E. (ed.) Harmonic mappings and minimal immersions. Lect. Notes Math. **1161**, pp. 1–117. Springer, Berlin, 1985
18. Boundary value problems for minimal surfaces. In: Osserman, R. (ed.) Geometry V, Minimal surfaces. Encycl. Math. Sci. **90**, pp. 153–237. Springer, Berlin, 1997
19. Analysis 2. Springer, Berlin, 2003
20. On Dirichlet's principle and Poincaré's méthode de balayage. Math. Nachr. **278**, 141–144 (2005)

Hildebrandt, S., Jäger, W.
1. On the regularity of surfaces with prescribed mean curvature at a free boundary. Math. Z. **118**, 289–308 (1970)

Hildebrandt, S., Jost, J., Widman, K.O.
1. Harmonic mappings and minimal submanifolds. Invent. Math. **62**, 269–298 (1980)

Hildebrandt, S., Kaul, H.
1. Two-dimensional variational problems with obstructions, and Plateau's problem for H-surfaces in a Riemannian manifold. Commun. Pure Appl. Math. **25**, 187–223 (1972)

Hildebrandt, S., Kaul, H., Widman, K.-O.
1. An existence theorem for harmonic mappings of Riemannian manifolds. Acta Math. **138**, 1–16 (1977)

Hildebrandt, S., Nitsche, J.C.C.
1. Minimal surfaces with free boundaries. Acta Math. **143**, 251–272 (1979)
2. Optimal boundary regularity for minimal surfaces with a free boundary. Manuscr. Math. **33**, 357–364 (1981)
3. A uniqueness theorem for surfaces of least area with partially free boundaries on obstacles. Arch. Ration. Mech. Anal. **79**, 189–218 (1982)
4. Geometric properties of minimal surfaces with free boundaries. Math. Z. **184**, 497–509 (1983)

Hildebrandt, S., Sauvigny, F.
1. Embeddedness and uniqueness of minimal surfaces solving a partially free boundary value problem. J. Reine Angew. Math. **422**, 69–89 (1991)
2. On one-to-one harmonic mappings and minimal surfaces. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl. **3**, 73–93 (1992)
3. Uniqueness of stable minimal surfaces with partially free boundaries. J. Math. Soc. Jpn. **47**, 423–440 (1995)
4. Minimal surfaces in a wedge, I. Asymptotic expansions. Calc. Var. Partial Differ. Equ. **5**, 99–115 (1997)
5. Minimal surfaces in a wedge, II. The edge-creeping phenomenon. Arch. Math. **69**, 164–176 (1997)
6. Minimal surfaces in a wedge, III. Existence of graph solutions and some uniqueness results. J. Reine Angew. Math. **514**, 71–101 (1999)
7. Minimal surfaces in a wedge, IV. Hölder estimates of the Gauss map and a Bernstein theorem. Calc. Var. Partial Differ. Equ. **8**, 71–90 (1999)
8. An energy estimate for the difference of solutions for the n-dimensional equation with prescribed mean curvature and removable singularities. Analysis **29**, 141–154 (2009)
9. Relative minimizers of energy are relative minimizers of area. Calc. Var. **37**, 475–483 (2010)

Hildebrandt, S., Tromba, A.J.
1. Mathematics and optimal form. Scientific American Library. W.H. Freeman, New York, 1985. [French transl.: Mathématiques et formes optimales. Pour la Science. Diff. Belin, Paris, 1986. German transl.: Panoptimum, Spektrum der Wissenschaft, Heidelberg, 1987. Dutch transl.: Architectuur in de Natuur, Wetenschappl. Bibliotheek, Natuur en Techniek, Maastricht/Brussel, 1989. Spanish transl.: Matematica y formas optimas. Prensa Cientifica, Barcelona, 1990. Japanese transl. 1995]
2. The parsimonious Universe. Shape and form in the natural world. Springer, New York, 1996 [German transl.: Kugel, Kreis und Seifenblasen. Optimale Formen in Geometrie und Natur. Birkhäuser, Basel, 1996. Italian transl. 2005]
3. On the branch point index of minimal surfaces. Arch. Math. **92**, 493–500 (2009)

Hildebrandt, S., von der Mosel, H.
1. On two-dimensional parametric variational problems. Calc. Var. Partial Differ. Equ. **9**, 249–267 (1999)
2. Plateau's problem for parametric double integrals: Part I. Existence and regularity in the interior. Commun. Pure Appl. Math. **56**, 926–955 (2003)
3. The partially free boundary problem for parametric double integrals. In: Nonlinear problems in mathematical physics and related topics I. Internat. Math. Ser. **I**, pp. 145–165. Kluwer/Plenum, London, 2002
4. Plateau's problem for parametric double integrals: Part II. Regularity at the boundary. J. Reine Angew. Math. **565**, 207–233 (2003)
5. Dominance functions for parametric Lagrangians. In: Geometric analysis and nonlinear partial differential equations, pp. 297–326. Springer, Berlin, 2003

6. On Lichtenstein's theorem about globally conformal mappings. Calc. Var. Partial Differ. Equ. **23**, 415–424 (2005)
7. Conformal representation of surfaces, and Plateau's problem for Cartan functionals. Riv. Mat. Univ. Parma (7) **4***, 1–43 (2005)
8. Conformal mapping of multiply connected Riemann domains by a variational approach. Adv. Calc. Var. **2**, 137–183 (2009)

Hildebrandt, S., Wente, H.C.
1. Variational problems with obstacles and a volume constraint. Math. Z. **135**, 55–68 (1973)

Hildebrandt, S., Widman, K.-O.
1. Some regularity results for quasilinear elliptic systems of second order. Math. Z. **142**, 67–86 (1975)

Hoffman, D.A.
1. The discovery of new embedded minimal surfaces: elliptic functions; symmetry; computer graphics. In: Proceedings of the Berlin Conference on Global Differential Geometry, Berlin, 1984
2. Embedded minimal surfaces, computer graphics and elliptic functions. In: Lect. Notes Math. **1156**, pp. 204–215. Springer, Berlin, 1985
3. The computer-aided discovery of new embedded minimal surfaces. Math. Intell. **9**, 8–21 (1987)
4. The construction of families of embedded minimal surfaces. In: Concus, P., Finn, R. (eds.) Variational methods for free surface interfaces, pp. 25–36. Springer, Berlin, 1987
5. New examples of singly-periodic minimal surfaces and their qualitative behavior. Contemp. Math. **101**, 97–106 (1989)
6. Natural minimal surfaces via theory and computation (videotape). Science Television, New York, Dec. 1990
7. Computing minimal surfaces; cf. GTMS 2005

Hoffman, D.A., Karcher, H.
1. Complete embedded minimal surfaces of finite total curvature. In: Geometry V, Minimal surfaces. Encycl. Math. Sci. **90**, pp. 5–93. Springer, Berlin, 1997

Hoffman, D.A., Karcher, H., Rosenberg, H.
1. Embedded minimal annuli in $\mathbb{R}^3$ bounded by a pair of straight lines. Comment. Math. Helv. **66**, 599–617 (1991)

Hoffman, D.A., Karcher, H., Wei, F.
1. Adding handles to the helicoid. Bull., New Ser., Am. Math. Soc. **29**, 77–84 (1993)
2. The genus one helicoid and the minimal surfaces that led to its discovery. In: Uhlenbeck, K. (ed.) Global analysis and modern mathematics, pp. 119–170. Publish or Perish Press, Berkeley, 1993

Hoffman, D.A., Meeks, W.H.
1. A complete embedded minimal surface in $\mathbb{R}^3$ with genus one and three ends. J. Differ. Geom. **21**, 109–127 (1985)
2. Complete embedded minimal surfaces of finite total curvature. Bull. Am. Math. Soc. **12**, 134–136 (1985)
3. Properties of properly embedded minimal surfaces of finite topology. Bull. Am. Math. Soc. **17**, 296–300 (1987)
4. The strong halfspace theorem for minimal surfaces. Invent. Math. 373–377 (1990)
5. A variational approach to the existence of complete embedded minimal surfaces. Duke Math. J. **57**, 877–894 (1988)
6. The asymptotic behavior of properly embedded minimal surfaces of finite topology. J. Am. Math. Soc. **2**, 667–682 (1989)

7. One parameter families of embedded minimal surfaces. Preprint, 1989
8. Properly embedded minimal surfaces of finite topology. Ann. Math. (2) **131**, 1–34 (1990)
9. Limits of minimal surfaces and Scherk's fifth surface. Arch. Ration. Mech. Anal. **111**, 181–195 (1990)
10. The global theory of embedded minimal surfaces. Preprint
11. Minimal surfaces based on the catenoid. Am. Math. Mon. **97**, 702–731 (1990)

Hoffman, D.A., Osserman, R.
1. The geometry of the generalized Gauss map. Mem. Am. Math. Soc. **236**, 1980
2. The area of the generalized Gaussian image and the stability of minimal surfaces in S^n and $\mathbb{R}^n$. Math. Ann. **260**, 437–452 (1982)
3. The Gauss map of surfaces in $\mathbb{R}^n$. J. Differ. Geom. **18**, 733–754 (1983)
4. The Gauss map of surfaces in $\mathbb{R}^3$ and $\mathbb{R}^4$. Proc. Lond. Math. Soc. (3) **50**, 27–56 (1985)

Hoffman, D.A., Osserman, R., Schoen, R.
1. On the Gauss map of complete surfaces of constant mean curvature in $\mathbb{R}^3$ and $\mathbb{R}^4$. Comment. Math. Helv. **57**, 519–531 (1982)

Hoffmann, D.A., Spruck, J.
1. Sobolev and isoperimetric inequalities for Riemannian submanifolds. Commun. Pure Appl. Math. **28**, 715–727 (1974)

Hoffman, D.A., Wohlgemuth, M.
1. New embedded periodic minimal surfaces of Riemann-type. Preprint

Hohrein, J.
1. Existence of unstable minimal surfaces of higher genus in manifolds of nonpositive curvature. Thesis. Universität Heidelberg, 1994

Hopf, E.
1. On an inequality for minimal surfaces $z = z(x, y)$. J. Ration. Mech. Anal. **2**, 519–522, 801–802 (1953)
2. Bemerkungen zu einem Satz von S. Bernstein aus der Theorie der elliptischen Differentialgleichungen. Math. Z. **29**, 744–745 (1929)
3. On S. Bernstein's theorem on surfaces $z(x, y)$ of non-positive curvature. Proc. Am. Math. Soc. **1**, 80–85 (1950)
4. Kleine Bemerkung zur Theorie der elliptischen Differentialgleichungen. J. Reine Angew. Math. **165**, 50–51 (1931)
5. A theorem on the accessability of boundary parts of an open point set. Proc. Am. Math. Soc. **1**, 76–79 (1950)

Hopf, H.
1. Differential geometry in the large. Stanford Lecture Notes, 1955. Reprint: Lect. Notes Math. **1000**, 2nd edn. Springer, Berlin, 1989

Hopf, H., Rinow, W.
1. Über den Begriff der vollständigen differentialgeometrischen Fläche. Comment. Math. Helv. **3**, 209–225 (1931)

Hsiung, C.C.
1. Isoperimetric inequalities for two-dimensional Riemannian manifolds with boundary. Ann. Math. (2) **73**, 213–220 (1961)

Hubbard, J.H.
1. On the convex hull genus of space curves. Topology **19**, 203–208 (1980)

Huber, A.
1. On subharmonic functions and differential geometry in the large. Comment. Math. Helv. **32**, 13–72 (1957)

Imbusch, C., Struwe, M.
1. Variational principles for minimal surfaces. In: Escher, J., Simonetti, G. (eds.) Progress in Nonlinear Differential Equations and Their Applications. **35**, pp. 477–498. Birkhäuser, Basel, 1999

Jäger, W.
1. Behavior of minimal surfaces with free boundaries. Commun. Pure Appl. Math. **23**, 803–818 (1970)
2. Ein Maximumprinzip für ein System nichtlinearer Differentialgleichungen. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl., 157–164 (1976)
3. Das Randverhalten von Flächen beschränkter mittlerer Krümmung bei $C^{1,\alpha}$-Rändern. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl. **5**, 45–54 (1977)

Jakob, R.
1. Instabile Extremalen des Shiffman-Funktionals. Bonner Math. Schr. **362**, 1–103 (2003)
2. Unstable extremal surfaces of the "Shiffman-functional". Calc. Var. Partial Differ. Equ. **21**, 401–427 (2004)
3. H-surface-index-formula. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **22**, 557–578 (2005)
4. A "quasi maximum principle" for $\mathcal{J}$-surfaces. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **24**, 549–561 (2007)
5. Unstable extremal surfaces of the "Shiffman functional" spanning rectifiable boundary curves. Calc. Var. Partial Differ. Equ. **28**, 383–409 (2007)
6. Boundary branch points of minimal surfaces spanning extreme polygons. Results Math. **55**, 87–100 (2009)
7. Mollified and classical Green functions on the unit disc. Preprint, Duisburger Math. Schriftenreihe Nr. 625 (2006)
8. Schwarz operators of minimal surfaces spanning polygonal boundary curves. Calc. Var. Partial Differ. Equ. **30**, 467–476 (2007)
9. Finiteness of the set of solutions of Plateau's problem for polygonal boundary curves. Habilitationsschrift, Duisburg, 2008
10. Local boundedness of the number of solutions of Plateau's problem for polygonal boundary curves. Ann. Glob. Anal. Geom. **33**, 231–244 (2008)

Jakobowski, N.
1. Multiple surfaces of prescribed mean curvature. Math. Z. **217**, 497–512 (1994)
2. A result on large surfaces of prescribed mean curvature in a Riemannian manifold. Calc. Var. Partial Differ. Equ. **5**, 85–97 (1997)

Jenkins, H., Serrin, J.
1. Variational problems of minimal surfaces type. I. Arch. Ration. Mech. Anal. **12**, 185–212 (1963)
2. Variational problems of minimal surface type. II: boundary value problems for the minimal surface equation. Arch. Ration. Mech. Anal. **21**, 321–342 (1965/1966)
3. The Dirichlet problem for the minimal surface equation in higher dimensions. J. Reine Angew. Math. **229**, 170–187 (1968)
4. Variational problems of minimal surface type. III. The Dirichlet problem with infinite data. Arch. Ration. Mech. Anal. **29**, 304–322 (1968)

Joachimsthal, F.
1. Demonstrationes theorematum ad superficies curvas spectantium. J. Reine Angew. Math. **30**, 347–350 (1846)

John, F.
1. Partial differential equations, 4th edn. Springer, New York, 1982

Jorge, L.P.M., Meeks, W.H.
1. The topology of complete minimal surfaces of finite total Gaussian curvature. Topology **22**, 203–221 (1983)

Jorge, L.P., Tomi, F.
1. The barrier principle for submanifolds of arbitrary codimension. Ann. Glob. Anal. Geom. **24**, 261–267 (2003)

Jorge, L.P.M., Xavier, F.
1. On the existence of a complete bounded minimal surface in $\mathbb{R}^3$. Bull. Braz. Math. Soc. **10**, 171–183 (1979)
2. A complete minimal surface in $\mathbb{R}^3$ between two parallel planes. Ann. Math. **112**, 203–206 (1980)

Jörgens, K.
1. Über die Lösungen der Differentialgleichung $rt - s^2 = 1$. Math. Ann. **127**, 130–134 (1954)
2. Harmonische Abbildungen und die Differentialgleichung $rt - s^2 = 1$. Math. Ann. **129**, 330–344 (1955)

Jost, J.
1. Univalency of harmonic mappings between surfaces. J. Reine Angew. Math. **342**, 141–153 (1981)
2. The Dirichlet problem for harmonic maps from a surface with boundary onto a 2-sphere with non-constant boundary values. J. Differ. Geom. **19**, 393–401 (1984)
3. Harmonic maps between surfaces. Lect. Notes Math. **1062**. Springer, Berlin, 1984
4. Harmonic mappings between Riemannian manifolds. Proc. CMA **4**. ANU-Press, Canberra, 1984
5. A note on harmonic maps between surfaces. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **2**, 397–405 (1985)
6. Conformal mappings and the Plateau–Douglas problem in Riemannian manifolds. J. Reine Angew. Math. **359**, 37–54 (1985)
7. Lectures on harmonic maps (with applications to conformal mappings and minimal surfaces). In: Lect. Notes Math. **1161**, pp. 118–192. Springer, Berlin, 1985
8. On the regularity of minimal surfaces with free boundaries in a Riemannian manifold. Manuscr. Math. **56**, 279–291 (1986)
9. Existence results for embedded minimal surfaces of controlled topological type. I. Ann. Sc. Norm Super. Pisa, Cl. Sci. (Ser. IV) **13**, 15–50 (1986): II. Ann. Sc. Norm. Super. Pisa, Cl. Sci. (Ser. IV) **13**, 401–426 (1986); III. Ann. Sc. Norm. Super. Pisa, Cl. Sci. (Ser. IV) **14**, 165–167 (1987)
10. On the existence of embedded minimal surfaces of higher genus with free boundaries in Riemannian manifolds. In: Concus, P., Finn, R. (eds.) Variational methods for free surface interfaces, pp. 65–75. Springer, New York, 1987
11. Two-dimensional geometric variational problems. In: Proc. Int. Congr. Math. 1986, Berkeley, pp. 1094–1100. Am. Math. Soc., Providence, 1987
12. Continuity of minimal surfaces with piecewise smooth boundary. Math. Ann. **276**, 599–614 (1987)
13. Embedded minimal disks with a free boundary on a polyhedron in $\mathbb{R}^3$. Math. Z. **199**, 311–320 (1988)
14. Das Existenzproblem für Minimalflächen. Jahresber. Dtsch. Math.-Ver. **90**, 1–32 (1988)

15. Embedded minimal surfaces in manifolds diffeomorphic to the three dimensional ball or sphere. J. Differ. Geom. **30**, 555–577 (1989)
16. Bosonic strings: A mathematical treatment. International Press/Am. Math. Soc., Sommerville, 2001
17. Two-dimensional geometric variational problems. Wiley-Interscience, Chichester, 1991
18. Riemannian geometry and geometric analysis. Universitext. Springer, Berlin, 1995
19. Eine geometrische Bemerkung zu Sätzen, die ein Dirichletproblem lösen. Manuscr. Math. **32**, 51–57 (1980)

Jost, J., Schoen, R.
1. On the existence of harmonic diffeomorphisms between surfaces. Invent. Math. **66**, 353–359 (1982)

Jost, J., Struwe, M.
1. Morse–Conley theory for minimal surfaces of varying topological type. Invent. Math. **l02**, 465–499 (1990)

Jost, J., Xin, Y.L.
1. Bernstein type theorems for higher codimension. Calc. Var. Partial Differ. Equ. **9**, 277–296 (1999)
2. A Bernstein theorem for special Lagrangian graphs. Calc. Var. Partial Differ. Equ. **5**, 299–312 (2002)

Jost, J., Xin, Y.L., Yang, L.
1. The regularity of harmonic maps into spheres and applications to Bernstein problems. Preprint, 2009

Kapouleas, N.
1. Compact constant mean curvature surfaces in Euclidean three-space. J. Differ. Geom. **33**, 683–715 (1991)
2. Constructions of minimal surfaces by gluing minimal immersions; cf. GTMS 2005

Karcher, H.
1. Embedded minimal surfaces derived from Scherk's examples. Manuscr. Math. **62**, 83–114 (1988)
2. The triply periodic minimal surfaces of Alan Schoen and their constant mean curvature companions. Manuscr. Math. **64**, 291–357 (1989)
3. Construction of minimal surfaces. Surveys in Geometry 1989/90, University of Tokyo, 1989. Also: Vorlesungsreihe Nr. 12, SFB 256, Bonn, 1989
4. Eingebettete Minimalflächen und ihre Riemannschen Flächen. Jahresber. Dtsch. Math.-Ver. **101**, 72–96 (1999)
5. Introduction to conjugate Plateau constructions; cf. GTMS 2005
6. Riemannian center of mass and mollifier smoothing. Commun. Pure Appl. Math. **30**, 509–541 (1977)

Karcher, H., Pinkall, U., Sterling, J.
1. New minimal surfaces in S^3. J. Differ. Geom. **28**, 169–185 (1988)

Karcher, H., Polthier, K.
1. Construction of triply periodic minimal surfaces. Philos. Trans. R. Soc. Lond. A **354**, 2077–2104 (1996)

Kaul, H.
1. Ein Einschließungssatz für H-Flächen in Riemannschen Mannigfaltigkeiten. Manuscr. Math. **5**, 103–112 (1971)
2. Remarks on the isoperimetric inequality for multiply connected H-surfaces. Math. Z. **128**, 271–276 (1972)

3. Isoperimetrische Ungleichung und Gauß–Bonnet Formel für H-Flächen in Riemannschen Mannigfaltigkeiten. Arch. Ration. Mech. Anal. **45**, 194–221 (1972)
4. Eindeutigkeit von Lösungen elliptischer Systeme. Vorlesungsreihe SFB 72 No. 4, Analysis-Seminar SS 1980, Bonn, 1980

Keiper, J.B.
1. The axially symmetric n-tectum. Preprint, 1989

Kellogg, O.D.
1. Harmonic functions and Green's integrals. Trans. Am. Math. Soc. **13**, 109–132 (1912)
2. On the derivatives of harmonic functions on the boundary. Trans. Am. Math. Soc. **33**, 486–510 (1931)

Kenmotsu, K.
1. On minimal immersions of $\mathbb{R}^2$ into S^n. J. Math. Soc. Jpn. **28**, 182–191 (1976)
2. Weierstrass formula for surfaces of prescribed mean curvature. Math. Ann. **245**, 89–99 (1979)
3. Minimal surfaces with constant curvature in four dimensional space forms. Proc. Am. Math. Soc. **89**, 131–138 (1983)

Kerékjártó, B. von
1. Vorlesungen über Topologie. Springer, Berlin, 1923

Kim, H.
1. Unstable minimal surfaces of annulus type in manifolds. Dissertation, Saarbrücken, 2003

Kinderlehrer, D.
1. The boundary regularity of minimal surfaces. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **23**, 711–744 (1969)
2. Minimal surfaces whose boundaries contain spikes. J. Math. Mech. **19**, 829–853 (1970)
3. The coincidence set of solutions of certain variational inequalities. Arch. Ration. Mech. Anal. **40**, 231–250 (1971)
4. The regularity of minimal surfaces defined over slit domains. Pac. J. Math. **37**, 109–117 (1971)
5. Variational inequalities with lower dimensional obstacles. Isr. J. Math. **10**, 330–348 (1971)
6. How a minimal surface leaves an obstacle. Acta Math. **130**, 221–242 (1973)
7. The free boundary determined by the solution of a differential equation. Indiana Univ. Math. J. **25**, 195–208 (1976)

Kinderlehrer, D., Nirenberg, L., Spruck, J.
1. Regularity in elliptic free boundary problems. I. J. Anal. Math. **34**, 86–119 (1978); II. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **6**, 637–683 (1979)

Kinderlehrer, D., Stampacchia, G.
1. An introduction to variational inequalities and their applications. Academic Press, New York, 1980

Klein, F.
1. Vorlesungen über die Entwicklung der Mathematik im 19. Jahrhundert, Teil 1 und 2. Springer, Berlin, 1926, 1927

Klingenberg, W.
1. A course on differential geometry. Springer, Berlin, 1978. Translated by D. Hoffman, 2nd edn., 1983

Klotz, T., Osserman, R.
1. On complete surfaces in E^3 with constant mean curvature. Comment. Math. Helv. **41**, 313–318 (1966–1967)

Klotz, T., Sario, L.
1. Existence of complete minimal surfaces of arbitrary connectivity and genus. Proc. Natl. Acad. Sci. USA **54**, 42–44 (1965)
2. Gaussian mapping of arbitrary minimal surfaces. J. Anal. Math. **17**, 209–217 (1966)

Klotz-Milnor, T.
1. Harmonically immersed surfaces. J. Differ. Geom. **14**, 205–214 (1979)

Kneser, H.
1. Lösung der Aufgabe 41. Jahresber. Dtsch. Math.-Ver. **35**, 123–124 (1926)
2. Die kleinste Bedeckungszahl innerhalb einer Klasse von Flächenabbildungen. Math. Ann. **103**, 347–358 (1930)

Kobayashi, S., Nomizu, K.
1. Foundations of differential geometry **II**. Interscience, New York, 1969

Koebe, P.
1. Über die konforme Abbildung mehrfach zusammenhängender Bereiche, insbesondere solcher Bereiche, deren Begrenzung von Kreisen gebildet wird. Jahresber. Dtsch. Math.-Ver. **15** (1906)
2. Abhandlungen zur Theorie der konformen Abbildung. I. Die Kreisabbildung des allgemeinen einfach und zweifach zusammenhängenden schlichten Bereichs und die Ränderzuordnung bei konformer Abbildung. J. Reine Angew. Math. **145**, 177–223 (1915)

Koiso, M.
1. On the finite solvability of Plateau's problem for extreme curves. Osaka J. Math. **20**, 177–183 (1983)
2. On the stability of minimal surfaces in $\mathbb{R}^3$. J. Math. Soc. Jpn. **36**, 523–541 (1984)
3. The stability and the Gauss map of minimal surfaces in $\mathbb{R}^3$. In: Lect. Notes Math. **1090**, pp. 77–92. Springer, Berlin, 1984
4. On the non-uniqueness for minimal surfaces in $\mathbb{R}^3$. Proc. Diff. Geom., Sendai, 1989
5. Function theoretic and functional analytic methods for minimal surfaces. Surveys in Geometry 1989/90. Minimal surfaces, Tokyo, 1989
6. The uniqueness for minimal surfaces in S^3. Manuscr. Math. **63**, 193–207 (1989)
7. On the space of minimal surfaces with boundaries. Osaka J. Math. **20**, 911–921 (1983)

Korevaar, N., Kusner, R., Solomon, B.
1. The structure of complete embedded minimal surfaces of constant mean curvature. J. Differ. Geom. **30**, 465–503 (1989)

Korn, A.
1. Über Minimalflächen, deren Randkurven wenig von ebenen Kurven abweichen. Abh. K. Preuss. Akad. Wiss. Phys.-Math. Kl. **II**, 1–37 (1909)
2. Zwei Anwendungen der Methode der sukzessiven Annäherungen. In: Schwarz-Festschrift, pp. 215–229. Springer, Berlin, 1914

Kühnel, W.
1. Zur Totalkrümmung vollständiger Flächen. Vorlesungsreihe des SFB 256, Universität Bonn, No. **5**, 98–101 (1988)
2. Differentialgeometrie. Vieweg, Wiesbaden, 1999

Küster, A.
1. Zweidimensionale Variationsprobleme mit Hindernissen und völlig freien Randbedingungen. Thesis, Mathematisches Institut der Universität Bonn, Bonn, 1983
2. An optimal estimate of the free boundary of a minimal surface. J. Reine Angew. Math. **349**, 55–62 (1984)
3. On the linear isoperimetric inequality. Manuscr. Math. **53**, 255–259 (1985)

Kuwert, E.
1. Der Minimalflächenbeweis des Positive Mass Theorem. Vorlesungsreihe des SFB 256, No. 14, Bonn, 1990
2. Embedded solutions for the exterior minimal surface problems. Manuscr. Math. **70**, 51–65 (1990)
3. On solutions of the exterior Dirichlet problem for the minimal surface equation. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **10**, 445–451 (1993)
4. A bound for minimal graphs with a normal at infinity. Calc. Var. Partial Differ. Equ. **1**, 407–416 (1993)
5. Area-minimizing immersions of the disk with boundary in a given homotopy class. Habilitationsschrift, Universität Bonn, 1995
6. Weak limits in the free boundary problem for immersions of the disk which minimize a conformally invariant functional. In: Jost, J. (ed.) Geometric analysis and the calculus of variations, pp. 203–215. International Press, Somerville, 1996
7. A compactness result for loops with an $H^{1/2}$-bound. J. Reine Angew. Math. **505**, 1–22 (1998)
8. Minimizing the energy of maps from a surface into a 2-sphere with prescribed degree and boundary values. Manuscr. Math. **83**, 31–38 (1994)
9. Harmonic maps between flat surfaces with conical singularities. Math. Z. **221**, 421–436 (1996)

Ladyzhenskaya, O.A., Uraltseva, N.N.
1. Quasilinear elliptic equations and variational problems with several independent variables. Usp. Mat. Nauk **16**, 19–90 (1961) (in Russian)
2. Linear and quasilinear elliptic equations. Academic Press, New York, 1968

Lawlor, G., Morgan, F.
1. Minimizing cones and networks: immiscible fluids, norms, and calibrations. Preprint, 1991

Lawson Jr., H.B.
1. Local rigidity theorem for minimal hypersurfaces. Ann. Math. **89**, 187–197 (1969)
2. The global behavior of minimal surfaces in S^n. Ann. Math. **92**, 224–237 (1970)
3. Compact minimal surfaces in S^3. In: Global analysis. Proc. Symp. Pure Math. **15**, pp. 275–282. Am. Math. Soc., Providence, 1970
4. Complete minimal surfaces in S^3. Ann. Math. **92**, 335–374 (1970)
5. The unknottedness of minimal embeddings. Invent. Math. **11**, 183–187 (1970)
6. Lectures on minimal submanifolds. Publish or Perish Press, Berkeley, 1971
7. Some intrinsic characterizations of minimal surfaces. J. Anal. Math. **24**, 151–161 (1971)
8. The equivariant Plateau problem and interior regularity. Trans. Am. Math. Soc. **173**, 231–249 (1972)
9. Minimal varieties in real and complex geometry. University of Montreal Press, Montreal, 1973
10. Surfaces minimales et la construction de Calabi–Penrose. Sémin. Bourbaki 36e année **624**, 1–15 (1983/1984). Astérisque **121–122**, 197–211 (1985)

Lemaire, L.
1. Boundary value problem for harmonic and minimal maps of surfaces into manifolds. Ann. Sc. Norm. Super. Pisa, Cl. Sci. (4) **8**, 91–103 (1982)
2. Applications harmoniques de surfaces Riemanniennes. J. Differ. Geom. **13**, 51–78 (1978)

Lesley, F.D.
1. Differentiability of minimal surfaces on the boundary. Pac. J. Math. **37**, 123–140 (1971)

Lévy, P.
1. Surfaces minima et corps convexes moyenne. C. R. Acad. Sci. Paris, Ser. A–B **223**, 881–883 (1946)
2. Exemples de contours pour lesquels le problème de Plateau a 3 ou $2p+1$ solutions. C. R. Acad. Sci. Paris **224**, 325–327 (1947)
3. Le problème de Plateau. Mathematica **23**, 1–45 (1947)

Lewy, H.
1. A priori limitations for solutions of Monge–Ampère equations, I, II. Trans. Am. Math. Soc. **37**, 417–434 (1935); **41**, 365–374 (1937)
2. Aspects of the calculus of variations. University of California Press, Berkeley, 1939 (Notes by J.W. Green)
3. On the nonvanishing of the Jacobian in certain one-to-one mappings. Bull. Am. Math. Soc. **42**, 689–692 (1936)
4. On minimal surfaces with partially free boundary. Commun. Pure Appl. Math. **4**, 1–13 (1951)
5. On the boundary behavior of minimal surfaces. Proc. Natl. Acad. Sci. USA **37**, 103–110 (1951)
6. On a variational problem with inequalities on the boundary. J. Math. Mech. **17**, 861–884 (1968)
7. On the non-vanishing of the Jacobian of a homeomorphism by harmonic gradients. Ann. Math. (2) **88**, 518–529 (1968)
8. About the Hessian of a spherical harmonic. Am. J. Math. **91**, 505–507 (1969)
9. On the coincidence set in variational inequalities. J. Differ. Geom. **6**, 497–501 (1972)
10. Über die Darstellung ebener Kurven mit Doppelpunkten. Nachr. Akad. Wiss. Gött., Math.-Phys. Kl. 109–130 (1981)

Lewy, H., Stampacchia, G.
1. On the regularity of the solution of a variational inequality. Commun. Pure Appl. Math. **22**, 153–188 (1969)
2. On existence and smoothness of solutions of some non-coercive variational inequalities. Arch. Ration. Mech. Anal. **41**, 241–253 (1971)

Li, P., Schoen, R., Yau, S.T.
1. On the isoperimetric inequality for minimal surfaces. Ann. Sc. Norm. Super. Pisa Cl. Sci., Ser. IV **XI.2**, 237–244 (1984)

Lichtenstein, L.
1. Neuere Entwicklung der Potentialtheorie, Konforme Abbildung. In: Encykl. Math. Wiss. **II** C 3, pp. 177–377. B.G. Teubner, Leipzig, 1909–1921
2. Beweis des Satzes, daß jedes hinreichend kleine, im wesentlichen stetig gekrümmte, singularitätenfreie Flächenstück auf einen Teil einer Ebene zusammenhängend und in den kleinsten Teilen ähnlich abgebildet wird. Abh. Königl. Preuss. Akad. Wiss. Berlin, Phys.-Math. Kl., Anhang, Abh. VI, 1–49 (1911)
3. Zur Theorie der konformen Abbildung. Konforme Abbildung nichtanalytischer singularitätenfreier Flächenstücke auf ebene Gebiete. Bull. Acad. Sci. Cracovie, Cl. Sci. Math. Nat. A, 192–217 (1916)
4. Neuere Entwicklung der Theorie partieller Differentialgleichungen zweiter Ordnung vom elliptischen Typus. In: Encykl. Math. Wiss. 2.3.2, pp. 1277–1334. B.G. Teubner, Leipzig, 1923–1927 (completed 1924)
5. Über einige Hilfssätze der Potentialtheorie, IV. Sitzungsber. Sächs. Akad. Wiss. Leipz., Math.-Nat. Wiss. Kl. **82**, 265–344 (1930)

Lin, F.-H.
1. Uniqueness and Nonuniqueness of the Plateau problem. Indiana Univ. Math. J. **36**(4), 843–848 (1987)
2. Regularity for a class of parametric obstacle problems. Dissertation, University of Minnesota, 1985
3. Plateau's problem for H-convex curves. Manuscr. Math. **58**, 491–511 (1987)
4. Estimates for surfaces which are stationary for an elliptic parametric integral. CMA report R28–86 (1986)

Lindelöf, L.
1. Théorie des surfaces de révolution à courbure moyenne constante. Acta Soc. Sci. Fenn. **7**, 345–372 (1863)
2. Sur les limites entre lesquelles le caténoïde est une surface minima. Acta Soc. Sci. Fenn. **9**, 353–360 (1871); also Math. Ann. **2**, 160–166 (1870)

Lipkin, L.J.
1. A free boundary problem for parametric integrals of the calculus of variations. Rend. Circ. Mat. Palermo (2) **17**, 33–67 (1968)

Longinetti, M.
1. On minimal surfaces bounded by two convex curves in parallel planes. Publ. dell'Ist. di Anal. Glob. & Appl. No. 12, Firenze, 1985

Luckhaus, S.
1. The Douglas-problem for surfaces of prescribed mean curvature. Preprint No. 234, SFB 72, Bonn, 1978

Lyusternik, L., Shnirelman, L.
1. Méthodes topologiques dans les problèmes variationnels. Actualités scient. et indust. **188**. Herman, Paris, 1934
2. Functional topology and abstract variational theory. Trans. Am. Math. Soc. **35**, 716–733 (1933)

Martín, F., Nadirashvili, N.
1. A Jordan curve spanned by a complete minimal surface. Arch. Ration. Mech. Anal. **184**, 285–301 (2007)

Marx, I.
1. On the classification of unstable minimal surfaces with polygonal boundaries. Commun. Pure Appl. Math. **8**, 235–244 (1955)

Massari, U., Miranda, M.
1. Minimal surfaces of codimension one. North-Holland Math. Stud. **91**. North-Holland, Amsterdam, 1984

Massey, W.
1. Algebraic topology: an introduction. Brace & World, Harcourt, 1967

McShane, E.J.
1. Parametrizations of saddle surfaces with applications to the problem of Plateau. Trans. Am. Math. Soc. **35**, 716–733 (1933)
2. On the analytic nature of surfaces of least area. Ann. Math. (2) **35**, 456–473 (1934)

Meeks, W.H.
1. The conformal structure and geometry of triply periodic minimal surfaces in $\mathbb{R}^3$. Ph.D. thesis, Berkeley, 1975
2. The conformal structure and geometry of triply periodic minimal surfaces in $\mathbb{R}^3$. Bull. Am. Math. Soc. **83**, 134–136 (1977)
3. Lectures on Plateau's problem. Escola de Geometria Differencial, Universidade Federal do Cearà (Brazil), de 17 a 28 de Julho de 1978

4. The classification of complete minimal surfaces in $\mathbb{R}^3$ with total curvature greater than -8π. Duke Math. J. **48**, 523–535 (1981)
5. Uniqueness theorems for minimal surfaces. Ill. J. Math. **25**, 318–336 (1981)
6. A survey of the geometric results in the classical theory of minimal surfaces. Bull. Braz. Math. Soc. **12**, 29–86 (1981)
7. The topological uniqueness of minimal surfaces in three-dimensional Euclidean space. Topology **20**, 389–410 (1981)
8. Recent progress on the geometry of surfaces in $\mathbb{R}^3$ and on the use of computer graphics as a research tool. In: Proceedings of the International Congress of Math., pp. 551–559. Berkeley, 1987
9. The topology and geometry of embedded surfaces of constant mean curvature. J. Differ. Geom. **27**, 539–552 (1988)
10. Regularity of the Albanese map for nonorientable surfaces. J. Differ. Geom. **29**, 345–352 (1989)
11. The geometry of triply-periodic minimal surfaces. Indiana Univ. Math. J. **39**, 877–936 (1990)
12. Global problems in classical minimal surface theory; cf. GTMS 2005

Meeks, W.H., Rosenberg, H.

1. The global theory of doubly periodic minimal surfaces. Invent. Math. **97**, 351–379 (1989)
2. The maximum principle at infinity for minimal surfaces in flat three-manifolds. Comment. Math. Helv. **69**, 255–270 (1990)
3. The geometry and conformal structure of properly embedded minimal surfaces of finite topology in $\mathbb{R}^3$. Invent. Math. **114**, 625–639 (1993)
4. Minimal surfaces of finite topology; cf. GTMS 2005

Meeks, W.H., Simon, L., Yau, S.T.

1. The existence of embedded minimal surfaces, exotic spheres and positive Ricci curvature. Ann. Math. **116**, 221–259 (1982)
2. Embedded minimal surfaces, exotic spheres, and manifolds with positive Ricci curvature. Ann. Math. **116**, 621–659 (1982)

Meeks, W.H., White, B.

1. Minimal surfaces bounding two convex curves in parallel planes. Comment. Math. Helv. **66**, 263–278 (1991)
2. The space of minimal annuli bounded by an extremal pair of planar curves. Commun. Anal. Geom. **1**, 415–437 (1993)

Meeks, W.H., Yau, S.-T.

1. Topology of three-manifolds and the embedding problems in minimal surface theory. Ann. Math. **112**, 441–484 (1980)
2. The equivariant Dehn's lemma and loop theorem. Comment. Math. Helv. **56**, 225–239 (1981)
3. The classical Plateau problem and the topology of three-dimensional manifolds. Topology **21**, 409–440 (1982)
4. The existence of embedded minimal surfaces and the problem of uniqueness. Math. Z. **179**, 151–168 (1982)
5. The equivariant loop theorem for three-dimensional manifolds and a review of existence theorems for minimal surfaces. In: The Smith conjecture, pp. 153–163. Academic Press, New York, 1984
6. The topological uniqueness theorem for minimal surfaces of finite type. Topology **31**, 305–316 (1992)

Mese, C.

1. Minimal surfaces and harmonic maps into singular geometry; cf. GTMS 2005

Micaleff, M.J., White, B.
1. The structure of branch points in minimal surfaces and in pseudoholomorphic curves. Ann. Math. **139**, 35–85 (1994)

Michael, F.H., Simon, L.M.
1. Sobolev and mean value inequalities on generalized submanifolds of $\mathbb{R}^n$. Commun. Pure Appl. Math. **26**, 361–379 (1973)

Mickle, E.J.
1. A remark on a theorem of Serge Bernstein. Proc. Am. Math. Soc. **1**, 86–89 (1950)

Miersemann, E.
1. Zur Regularität verallgemeinerter Lösungen von quasilinearen Differentialgleichungen in Gebieten mit Ecken. Z. Anal. Anwend. (4) **1**, 59–71 (1982)
2. Zur Gleichung der Fläche mit gegebener mittlerer Krümmung in zweidimensionalen eckigen Gebieten. Math. Nachr. **110**, 231–241 (1983)
3. Zur gemischten Randwertaufgabe für die Minimalflächengleichung. Math. Nachr. **115**, 125–136 (1984)

Milnor, J.
1. Morse theory. Ann. Math. Stud. **51**. Princeton University Press, Princeton, 1963
2. Topology from the differentiable view point. University Press of Virginia, Charlottesville, 1965

Minding, F.
1. Bemerkung über die Abwickelung krummer Linien auf Flächen. J. Reine Angew. Math. **6**, 159–161 (1830)
2. Zur Theorie der Curven kürzesten Umringes, bei gegebenem Flächeninhalt, auf krummen Flächen. J. Reine Angew. Math. **86**, 279–289 (1879)

Miranda, C.
1. Sul problema misto per le equazioni lineari ellitiche. Ann. Mat. Pura Appl. **39**, 279–303 (1955)

Miranda, M.
1. Sulle singolarità eliminabili delle soluzioni della equazione delle ipersurficie minimale. Ann. Scuola Norm. Pisa, Ser. IV A, 129–132 (1977)
2. Disuguaglianze di Sobolev sulle ipersuperfici minimali. Rend. Semin. Mat. Univ. Padova **38**, 69–79 (1967)
3. Una maggiorazione integrale per le curvature delle ipersuperfici minimali. Rend. Semin. Mat. Univ. Padova **38**, 91–107 (1967)
4. Some remarks about a free boundary type problem. In: Ericksen, Kinderlehrer (eds.) Liquid crystals. IMA Vol. Math. Appl. **5**. Springer, Berlin, 1987

Morgan, F.
1. A smooth curve in $\mathbb{R}^4$ bounding a continuum of area minimizing surfaces. Duke Math. J. **43**, 867–870 (1976)
2. Almost every curve in $\mathbb{R}^3$ bounds a unique area minimizing surface. Invent. Math. **45**, 253–297 (1978)
3. A smooth curve in $\mathbb{R}^3$ bounding a continuum of minimal manifolds. Arch. Ration. Mech. Anal. **75**, 193–197 (1980)
4. On the singular structure of two-dimensional area minimizing surfaces in $\mathbb{R}^n$. Math. Ann. **261**, 101–110 (1982)
5. On finiteness of the number of stable minimal hypersurfaces with a fixed boundary. Bull. Am. Math. Soc. **13**, 133–136 (1985)
6. Geometric measure theory: A beginner's guide. Academic Press, San Diego, 1988; 3rd edn., 2000

7. Clusters minimizing area plus length of singular curves. Math. Ann. **299**, 697–714 (1994)
8. Regularity of isoperimetric hypersurfaces in Riemannian manifolds. Trans. Am. Math. Soc. **355**, 5041–5052 (2003)

Morgan, F., Ritoré, M.
1. Geometric measure theory and the proof of the double bubble conjecture; cf. GTMS 2005

Morrey, C. B.
1. On the solutions of quasi-linear elliptic partial differential equations. Trans. Am. Math. Soc. **43**, 126–166 (1938)
2. Multiple integral problems in the calculus of variations and related topics. Univ. Calif. Publ. Math., New Ser. **1**(1), 1–130 (1943)
3. The problem of Plateau on a Riemannian manifold. Ann. Math. (2) **49**, 807–851 (1948)
4. Second order elliptic systems of differential equations. In: Contributions to the theory of partial differential equations. Ann. Math. Stud. **33**, pp. 101–160. Princeton University Press, Princeton, 1954
5. On the analyticity of the solutions of analytic non-linear elliptic systems of partial differential equations. Am. J. Math. **80**, I. 198–218, II. 219–234 (1958)
6. Multiple integral problems in the calculus of variations and related topics. Ann. Sc. Norm. Super. Pisa, Cl. Sci. **14**, 1–61 (1960)
7. The higher dimensional Plateau problem on a Riemannian manifold. Proc. Natl. Acad. Sci. USA **54**, 1029–1035 (1965)
8. Multiple integrals in the calculus of variations. Grundlehren Math. Wiss. **130**. Springer, Berlin, 1966
9. The parametric variational problem for double integrals. Commun. Pure Appl. Math. **14**, 569–575 (1961)

Morrey, C.B., Nirenberg, L.
1. On the analyticity of the solutions of linear elliptic systems of partial differential equations. Commun. Pure Appl. Math. **10**, 271–290 (1957)

Morse, M.
1. The calculus of variations in the large. Am. Math. Soc. Colloquium Publication **18**, 1934
2. Functional topology and abstract variational theory. Ann. Math. **38**, 386–449 (1937)

Morse, M., Tompkins, C.B.
1. Existence of minimal surfaces of general critical type. Ann. Math. **40**, 443–472 (1939); correction in **42**, 331 (1941)
2. Existence of minimal surfaces of general critical type. Proc. Natl. Acad. Sci. USA **25**, 153–158 (1939)
3. The continuity of the area of harmonic surfaces as a function of the boundary representation. Am. J. Math. **63**, 825–838 (1941)
4. Unstable minimal surfaces of higher topological structure. Duke Math. J. **8**, 350–375 (1941)
5. Minimal surfaces of non-minimum type by a new mode of approximation. Ann. Math. (2) **42**, 62–72 (1941)

Moser, J.
1. A new proof of De Giorgi's theorem concerning the regularity problem for elliptic differential equations. Commun. Pure Appl. Math. **13**, 457–468 (1960)
2. On Harnack's theorem for elliptic differential equations. Commun. Pure Appl. Math. **14**, 577–591 (1961)

Müller, F.
1. Analyticity of solutions for semilinear elliptic systems of second order. Calc. Var. Partial Differ. Equ. **15**, 257–288 (2002)

2. On the continuations for solutions for elliptic equations in two variables. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **19**, 745–776 (2002)
3. On the analytic continuation of H-surfaces across the free boundary. Analysis **22**, 201–218 (2002)
4. Hölder continuity of surfaces with bounded mean curvature at corners where Plateau boundaries meet free boundaries. Calc. Var. Partial Differ. Equ. **24**, 283–288 (2005)
5. On stable surfaces of prescribed mean curvature with partially free boundaries. Analysis **26**, 289–308 (2005)
6. A priori bounds for surfaces with prescribed mean curvature and partially free boundaries. Calc. Var. Partial Differ. Equ. **24**, 471–489 (2006)
7. On the regularity of H-surfaces with free boundaries on a smooth support manifold. Analysis **28**, 401–419 (2009)
8. Investigations on the regularity of surfaces with prescribed mean curvature and partially free boundaries. Habilitationsschrift, BTU Cottbus, 2007
9. Growth estimates for the gradient of an H-surface near singular points of the boundary configuration. Z. Anal. Anwend. **28**, 87–102 (2009)
10. The asymptotic behaviour of surfaces with prescribed mean curvature near meeting points of fixed and free boundaries. Ann. Sc. Norm. Super. Pisa, Cl. Sci. (5) **6**, 529–559 (2007)
11. On the behaviour of free H-surfaces near singular points of the support surface. Adv. Calc. Var. **1**, 345–378 (2008)

Müller, F., Schikorra, A.
1. Boundary regularity via Uhlenbeck–Rivière decomposition. Analysis **29**, 199–220 (2009)

Müller, F., Winklmann, S.
1. Projectability and uniqueness of F-stable immersions with partially free boundaries. Pac. J. Math. **230**, 409–426 (2007)

Müntz, C.H.
1. Zum Randwertproblem der partiellen Differentialgleichung der Minimalflächen. J. Reine Angew. Math. **139**, 52–79 (1911)
2. Die Lösung des Plateauschen Problems über konvexen Bereichen. Math. Ann. **94**, 53–96 (1925)
3. Zum Plateauschen Problem. Erwiderung auf die vorstehende Note des Herrn Radó. Math. Ann. **96**, 597–600 (1927)

Nadirashvili, N.
1. Hadamard's and Calabi–Yau's conjectures on negatively curved and minimal surfaces. Invent. Math. **126**, 457–465 (1996)

Nakauchi, N.
1. Multiply connected minimal surfaces and the geometric annulus theorem. J. Math. Soc. Jpn. **37**, 17–39 (1985)

Natanson, I.P.
1. Theorie der Funktionen einer reellen Veränderlichen. Akademie-Verlag, Berlin, 1975

Nehring, G.
1. Embedded minimal annuli solving an exterior problem. Calc. Var. Partial Differ. Equ. **2**, 373–388 (1994)

Nirenberg, L.
1. Remarks on strongly elliptic partial differential equations. Commun. Pure Appl. Math. **8**, 648–674 (1955)
2. On elliptic partial differential equations. Ann. Sc. Norm. Super. Pisa, Cl. Sci., Ser. 3 **13**, 115–162 (1959)

Nitsche, J.C.C.
1. Über eine mit der Minimalflächengleichung zusammenhängende analytische Funktion und den Bernsteinschen Satz. Arch. Math. **7**, 417–419 (1956)
2. Elementary proof of Bernstein's theorem on minimal surfaces. Ann Math. (2) **66**, 543–544 (1957)
3. A uniqueness theorem of Bernstein's type for minimal surfaces in cylindrical coordinates. J. Math. Mech. **6**, 859–864 (1957)
4. A characterization of the catenoid. J. Math. Mech. **11**, 293–302 (1962)
5. Über die Ausdehnung gewisser zweifach zusammenhängender Minimalflächen. Math. Ann. **149**, 144–149 (1963)
6. Review of Sasaki Sasaki [1]. Math. Rev. **25**, Nr. 492 (1963)
7. A supplement to the condition of J. Douglas. Rend. Circ. Mat. Palermo (2) **13**, 192–198 (1964)
8. A necessary criterion for the existence of certain minimal surfaces. J. Math. Mech. **13**, 659–666 (1964)
9. On the non-solvability of Dirichlet's problem for the minimal surface equation. J. Math. Mech. **14**, 779–788 (1965)
10. The isoperimetric inequality for multiply connected minimal surfaces. Math. Ann. **160**, 370–375 (1965)
11. On new results in the theory of minimal surfaces. Bull. Am. Math. Soc. **71**, 195–270 (1965)
12. Über ein verallgemeinertes Dirichletsches Problem für die Minimalflächengleichung und hebbare Unstetigkeiten ihrer Lösungen. Math. Ann. **158**, 203–214 (1965)
13. Ein Einschließungssatz für Minimalflächen. Math. Ann. **165**, 71–75 (1966)
14. Contours bounding at least three solutions of Plateau's problem. Arch. Ration. Mech. Anal. **30**, 1–11 (1968)
15. Note on the non-existence of minimal surfaces. Proc. Am. Math. Soc. **19**, 1303–1305 (1968)
16. The boundary behavior of minimal surfaces—Kellogg's theorem and branch points on the boundary. Invent. Math. **8**, 313–333 (1969)
17. Concerning the isolated character of solutions of Plateau's problem. Math. Z. **109**, 393–411 (1969)
18. A variational problem with inequalities as boundary conditions. Bull. Am. Math. Soc. **75**, 450–452 (1969)
19. Variational problems with inequalities as boundary conditions, or, how to fashion a cheap hat for Giacometti's brother. Arch. Ration. Mech. Anal. **35**, 83–113 (1969)
20. Concerning my paper on the boundary behavior of minimal surfaces. Invent. Math. **9**, 270 (1970)
21. An isoperimetric property of surfaces with movable boundaries. Am. Math. Mon. **77**, 359–362 (1970)
22. Minimal surfaces with partially free boundary. Least area property and Hölder continuity for boundaries satisfying a chord-arc condition. Arch. Ration. Mech. Anal. **39**, 131–145 (1970)
23. Minimal surfaces with movable boundaries. Bull. Am. Math. Soc. **77**, 746–751 (1971)
24. The regularity of minimal surfaces on the movable parts of their boundaries. Indiana Univ. Math. J. **21**, 505–513 (1971)
25. On the boundary regularity of surfaces of least area in euclidean space. In: Continuum mechanics and related problems in analysis, pp. 375–377. Nauka, Moscow, 1972
26. A new uniqueness theorem for minimal surfaces. Arch. Ration. Mech. Anal. **52**, 319–329 (1973)
27. Plateau problems and their modern ramifications. Am. Math. Mon. **81**, 945–968 (1974)

28. Vorlesungen über Minimalflächen. Grundlehren Math. Wiss. **199**. Springer, Berlin, 1975
29. Non-uniqueness for Plateau's problem. A bifurcation process. Ann. Acad. Sci. Fenn., Ser. A 1 Math. **2**, 361–373 (1976)
30. The regularity of the trace for minimal surfaces. Ann. Sc. Norm. Super. Pisa, Cl. Sci., Ser. IV **3**, 139–155 (1976)
31. Contours bounding at most finitely many solutions of Plateau's problem. In: Complex analysis and its applications, dedicated to I.N. Vekua. Nauka, Moscow, 1978
32. Uniqueness and non-uniqueness for Plateau's problem—one of the last major questions. In: Minimal submanifolds and geodesics. Proceedings of the Japan–United States Seminar on Minimal Submanifolds, including Geodesics, Tokyo, 1977, pp. 143–161. Kagai Publications, Tokyo, 1978
33. The higher regularity of liquid edges in aggregates of minimal surfaces. Nachr. Akad. Wiss. Gött. Math.-Phys. Kl., 2B **2**, 31–51 (1978)
34. Minimal surfaces and partial differential equations. In: MAA Studies in Mathematics **23**, pp. 69–142. Math. Assoc. Am., Washington, 1982
35. Stationary partitioning of convex bodies. Arch. Ration. Mech. Anal. **89**, 1–19 (1985); corrigendum in Arch. Ration. Mech. Anal. **95**, 389 (1986)
36. Nonparametric solutions of Plateau's problem need not minimize area. Analysis **8**, 69–72 (1988)
37. Lectures on minimal surfaces, vol. 1: Introduction, fundamentals, geometry and basic boundary problems. Cambridge University Press, Cambridge, 1989
38. On an estimate for the curvature of minimal surfaces $z = z(x, y)$. J. Math. Mech. **7**, 767–769 (1958)

Nitsche, J.C.C., Leavitt, J.

1. Numerical estimates for minimal surfaces. Math. Ann. **180**, 170–174 (1969)

Osserman, R.

1. Proof of a conjecture of Nirenberg. Commun. Pure Appl. Math. **12**, 229–232 (1959)
2. On the Gauss curvature of minimal surfaces. Trans. Am. Math. Soc. **96**, 115–128 (1960)
3. Minimal surfaces in the large. Comment. Math. Helv. **35**, 65–76 (1961)
4. On complete minimal surfaces. Arch. Ration. Mech. Anal. **13**, 392–404 (1963)
5. Global properties of minimal surfaces in E^3 and E^n. Ann. Math. (2) **80**, 340–364 (1964)
6. Some geometric properties of polynomial surfaces. Comment. Math. Helv. **37**, 214–220 (1962–63)
7. Global properties of classical minimal surfaces. Duke Math. J. **32**, 565–573 (1965)
8. Le théorème de Bernstein pour des systèmes. C. R. Acad. Sci. Paris, Sér. A **262**, 571–574 (1966)
9. Minimal surfaces. Usp. Mat. Nauk **22**, 56–136 (1967) (in Russian)
10. A survey of minimal surfaces. Van Nostrand, New York, 1969
11. Minimal varieties. Bull. Am. Math. Soc. **75**, 1092–1120 (1969)
12. A proof of the regularity everywhere of the classical solution to Plateau's problem. Ann. Math. (2) **91**, 550–569 (1970)
13. Some properties of solutions to the minimal surface system for arbitrary codimension. In: Global analysis. Proc. Symp. Pure Math. **15**, pp. 283–291. Am. Math. Soc., Providence, 1970
14. On the convex hull property of immersed manifolds. J. Differ. Geom. **6**, 267–270 (1971)
15. Branched immersions of surfaces. In: Symposia Mathematica of Istituto Nazionale di Alta Matematica Roma **10**, pp. 141–158. Academic Press, London, 1972
16. On Bers' theorem on isolated singularities. Indiana Univ. Math. J. **23**, 337–342 (1973)

17. Isoperimetric and related inequalities. In: Proc. Symp. Pure Math. **27**, pp. 207–215. Am. Math. Soc., Providence, 1975
18. Some remarks on the isoperimetric inequality and a problem of Gehring. J. Anal. Math. **30**, 404–410 (1976)
19. The isoperimetric inequality. Bull. Am. Math. Soc. **84**, 1182–1238 (1978)
20. Properties of solutions to the minimal surface equation in higher codimension. In: Minimal submanifolds and geodesics. Proceedings of the Japan–United States Seminar on Minimal Submanifolds, including Geodesics, Tokyo, 1977, pp. 163–172. Kagai Publications, Tokyo, 1978
21. Minimal surfaces, Gauss maps, total curvature, eigenvalue estimates, and stability. In: The Chern Symposium, 1979, pp. 199–227. Springer, Berlin, 1980
22. The total curvature of algebraic surfaces. In: Contributions to analysis and geometry, pp. 249–257. John Hopkins University Press, Baltimore, 1982
23. The minimal surface equation. In: Seminar on nonlinear partial differential equations. Math. Sci. Res. Inst. Publ. **2**, pp. 237–259. Springer, Berlin, 1984
24. Minimal surfaces in $\mathbb{R}^3$. In: Chern, S.S. (ed.) Global differential geometry. MAA Studies in Mathematics **27**, pp. 73–98. Math. Assoc. Am., Washington, 1990
25. Riemann surfaces of class A. Trans. Am. Math. Soc. **82**, 217–245 (1956)

Osserman, R., Schiffer, M.

1. Doubly connected minimal surfaces. Arch. Ration. Mech. Anal. **58**, 285–307 (1974/75)

Otsuki, T.

1. Minimal hypersurfaces in a Riemannian manifold of constant curvature. Am. J. Math. **92**, 145–173 (1970)

Otto, F., Editor

1. Zugbeanspruchte Konstruktionen, Bd. 1 und 2. Ullstein Fachverlag, Berlin Frankfurt/M. Wien, 1962 und 1966

Painlevé, P.

1. Sur la théorie de la représentation conforme. C. R. Acad. Sci. Paris **112**, 653–657 (1891)

Pilz, R.

1. On the thread problem for minimal surfaces. Calc. Var. Partial Differ. Equ. **5**, 117–136 (1997)

Pinkall, U., Polthier, K.

1. Computing discrete minimal surfaces and their conjugates. Exp. Math. **2**, 15–36 (1993)

Pitts, J.

1. Existence and regularity of minimal surfaces on Riemannian manifolds. Ann. Math. Stud. **27**. Princeton University Press, Princeton, 1981

Pitts, J., Rubinstein, H.

1. Existence of minimal surfaces of bounded topological type in 3-manifolds. In: Proceedings of the Centre for Mathematical Analysis **10**. Australian National University, Canberra, Australia, 1987

Plateau, J.A.F.

1. Statique expérimentale et théoretique des liquides soumis aux seule forces moléculaires, vols. I, II. Gauthier-Villars, Paris, 1873

Pohl, W.F.

1. Review of Osserman [12]. Math Reviews **42**, 1, Nr. 979 (1972)

Polthier, K.

1. Neue Minimalflächen in $\mathbb{H}^3$. Diplomarbeit, Bonn, 1989
2. Geometric data for triply periodic minimal surfaces in spaces of constant curvature. Preprint, SFB 256, Report No. 4, Bonn, 1989

3. Bilder aus der Differentialgeometrie. Kalender 1989. Vieweg, Braunschweig, 1989
4. Geometric data for triply periodic minimal surfaces in spaces of constant curvature. In: Concus, P., Finn, R., Hoffman, D. (eds.) Geometric analysis and computer graphics, pp. 141–145. Springer, New York, 1991
5. Computational aspects and discrete minimal surfaces. In: Hoffman, D. (ed.) Proc. Clay Summerschool on Minimal Surfaces. Am. Math. Soc., Providence, 2002
6. Unstable periodic discrete minimal surfaces. In: Hildebrandt, S., Karcher, H. (eds.) Geometric analysis and nonlinear partial differential equations, pp. 129–145. Springer, Berlin, 2003
7. Computational aspects of discrete minimal surfaces; cf. GTMS 2005

Polthier, K., Wohlgemuth, M.

1. Bilder aus der Differentialgeometrie. Kalender 1988. Computergraphiken. Vieweg, Braunschweig, 1988

Protter, M., Weinberger, H.

1. Maximum principles in differential equations. Prentice-Hall, Englewood, 1967

Quien, N.

1. Über die endliche Lösbarkeit des Plateau-Problems in Riemannschen Mannigfaltigkeiten. Manuscr. Math. **39**, 313–338 (1982)

Quien, N., Tomi, F.

1. Nearly planar Jordan curves spanning a given number of minimal immersions of the disc. Arch. Math. **44**, 456–460 (1985)

Radó, T.

1. Über die Fundamentalabbildung schlichter Gebiete. Acta Litt. Sci. Univ. Szeged. 240−251(1923)
2. Über den analytischen Charakter der Minimalflächen. Math. Z. **24**, 321–327 (1925)
3. Bemerkung über die Differentialgleichungen zweidimensionaler Variationsprobleme. Acta Litt. Sci. Univ. Szeged. 147–156 (1925)
4. Über den Begriff der Riemannschen Fläche. Acta Litt. Sci. Univ. Szeged. 101–121 (1925)
5. Aufgabe 41. Jahresber. Dtsch. Math.-Ver. **35**, 49 (1926)
6. Geometrische Betrachtungen über zweidimensionale reguläre Variationsprobleme. Acta Litt. Sci. Univ. Szeged. 228–253 (1926)
7. Sur le calcul de l'aire des surface courbes. Fundam. Math. **10**, 197–210 (1926)
8. Das Hilbertsche Theorem über den analytischen Charakter der Lösungen der partiellen Differentialgleichungen zweiter Ordnung. Math. Z. **25**, 514–589 (1926)
9. Bemerkung über das Doppelintegral $\iint(1+p^2+q^2)^{1/2}\,dx\,dy$. Math. Z. **26**, 408–416 (1927)
10. Zu einem Satz von S. Bernstein über Minimalflächen im Großen. Math. Z. **26**, 559–565 (1927)
11. Bemerkung zur Arbeit von Herrn Ch. H. Müntz über das Plateausche Problem. Math. Ann. **96**, 587–596 (1927)
12. Sur l'aire des surfaces courbes. Acta Litt. Sci. Univ. Szeged. **3**, 131–169 (1927)
13. Über das Flächenmaß rektifizierbarer Flächen. Math. Ann. **100**, 445–479 (1928)
14. Bemerkung über die konformen Abbildungen konvexer Gebiete. Math. Ann. **102**, 428–429 (1929)
15. Über zweidimensionale reguläre Variationsprobleme der Form $\iint F(p,q)\,dx\,dy =$ Minimum. Math. Ann. **101**, 620–632 (1929)
16. Some remarks on the problem of Plateau. Proc. Natl. Acad. Sci. USA **16**, 242–248 (1930)
17. The problem of the least area and the problem of Plateau. Math. Z. **32**, 763–796 (1930)

18. On Plateau's problem. Ann. Math. (2) **31**, 457–469 (1930)
19. On the functional of Mr. Douglas. Ann. Math. (2) **32**, 785–803 (1931)
20. Contributions to the theory of minimal surfaces. Acta Sci. Math. Univ. Szeged. **6**, 1–20 (1932)
21. On the problem of Plateau. Ergebnisse der Math. Band 2. Springer, Berlin, 1933
22. An iterative process in the problem of Plateau. Trans. Am. Math. Soc. **35**, 869–887 (1933)
23. Length and area. Am. Math. Soc. Colloq. Publ. **30**. Am. Math. Soc., Providence, 1948

Radó, T., Reicheldorfer, P.
1. Note on an inequality of Steiner. Bull. Am. Math. Soc. **47**, 102–108 (1941)

Reade, M.
1. Analogue of a theorem of F. and M. Riesz for minimal surfaces. J. Math. Soc. Jpn. **8**, 177–179 (1956)

Reid, C.
1. Courant. Springer, Berlin, 1976

Reid, W.T.
1. The isoperimetric inequality and associated boundary problems. J. Math. Mech. **8**, 897–905 (1959)

Reifenberg, E.R.
1. Solution of the Plateau problem for m-dimensional surfaces of varying topological type. Acta Math. **104**, 1–92 (1960)
2. An epiperimetric inequality related to the analyticity of minimal surfaces. Ann. Math. **80**, 1–14 (1964)
3. On the analyticity of minimal surfaces. Ann. Math. **80**, 15–21 (1964)

Reilly, R.C.
1. Extrinsic rigidity theorems for compact submanifolds of the sphere. J. Differ. Geom. **4**, 487–497 (1970)

Riemann, B.
1. Gesammelte mathematische Werke. B.G. Teubner, Leipzig, 1876 (1. Auflage), 1892 (2. Auflage) und Nachträge, 1902
2. Über die Fläche vom kleinsten Inhalt bei gegebener Begrenzung. Abh. K. Ges. Wiss. Gött., Math. Kl. **13**, 3–52 (1867) (K. Hattendorff, ed.)

Riesz, F.
1. Über die Randwerte einer analytischen Funktion. Math. Z. **18**, 87–95 (1923)

Riesz, F., Riesz, M.
1. Über die Randwerte einer analytischen Funktion. In: Comptes rendus du 4. Congr. des Math. Scand. Stockh., pp. 27–44, 1916

Ripoll, J., Tomi, F.
1. Maximum principles for minimal surfaces having noncompact boundary and a uniqueness theorem for the helicoid. Manuscr. Math. **87**, 417–434 (1995)

Ritter F.
1. Solution of Schwarz' problem concerning minimal surfaces. Rev. Univ. Nac. Tucumán **1**, 40–62 (1940)

Rivière, T.
1. Conservation laws for conformally invariant variational problems. Invent. Math. **168**, 1–22 (2007)

Rivière, T., Struwe, M.
1. Partial regularity for harmonic maps and related problems. Commun. Pure Appl. Math. **61**, 451–463 (2008)

Ruchert, H.
1. Ein Eindeutigkeitssatz für Flächen konstanter mittlerer Krümmung. Arch. Math. **33**, 91–104 (1979)
2. A uniqueness result for Enneper's minimal surface. Indiana Univ. Math. J. **30**, 427–431 (1981)

Rudin, W.
1. Real and complex analysis. Tata McGraw-Hill, New Delhi, 1966
2. Functional analysis. McGraw-Hill, New York, 1973

Ruh, E.A., Vilms, J.
1. The tension field of the Gauss map. Trans. Am. Math. Soc. **149**, 569–573 (1970)

Rummler, H.
1. Quelques notions simples en géométrie riemannienne et leurs applications aux feuilletages compacts. Comment. Math. Helv. **54**, 224–239 (1979)

Sacks, J., Uhlenbeck, K.
1. The existence of minimal immersions of two-spheres. Ann. Math. **113**, 1–24 (1981)
2. Minimal immersions of closed Riemann surfaces. Trans. Am. Math. Soc. **271**, 639–652 (1982)

Sasaki, S.
1. On the total curvature of a closed curve. Jpn. J. Math. **29**, 118–125 (1959)

Sauvigny, F.
1. Flächen vorgeschriebener mittlerer Krümmung mit eineindeutiger Projektion auf eine Ebene. Dissertation, Göttingen, 1981
2. Flächen vorgeschriebener mittlerer Krümmung mit eineindeutiger Projektion auf eine Ebene. Math. Z. **180**, 41–67 (1982)
3. Ein Eindeutigkeitssatz für Minimalflächen im $\mathbb{R}^p$ mit polygonalem Rand. J. Reine Angew. Math. **358**, 92–96 (1985)
4. On the Morse index of minimal surfaces in $\mathbb{R}^p$ with polygonal boundaries. Manuscr. Math. **53**, 167–197 (1985)
5. Die zweite Variation von Minimalflächen im $\mathbb{R}^p$ mit polygonalem Rand. Math. Z. **189**, 167–184 (1985)
6. On the total number of branch points of quasi-minimal surfaces bounded by a polygon. Analysis **8**, 297–304 (1988)
7. A-priori-Abschätzungen der Hauptkrümmungen für Immersionen vom Mittleren-Krümmungs-Typ mittels Uniformisierung und Sätze vom Bernstein-Typ. Habilitationsschrift, Göttingen, 1989
8. A priori estimates of the principal curvatures for immersions of prescribed mean curvature and theorems of Bernstein type. Math. Z. **205**, 567–582 (1990)
9. Curvature estimates for immersions of minimal surfaces type via uniformization and theorems of Bernstein type. Manuscr. Math. **67**, 69–97 (1990)
10. On immersions of constant mean curvature: compactness results and finiteness theorems for Plateau's problem. Arch. Ration. Mech. Anal. **110**, 125–140 (1990)
11. A new proof for the gradient estimate for graphs of prescribed mean curvature. Manuscr. Math. **74**, 83–86 (1992)
12. Uniqueness of Plateau's problem for certain contours with a one-to-one, nonconvex projection onto a plane. In: Jost, J. (ed.) Geometric analysis and the calculus of variations, pp. 297–314. International Press, Somerville, 1996

13. Introduction to isothermal parameters into a Riemannian metric by the continuity method. Analysis **19**, 235–243 (1999)
14. Global $C^{2+\alpha}$-estimates for conformal maps. In: Hildebrandt, S., Karcher, H. (eds.) Geometric analysis and nonlinear partial differential equations, pp. 105–115. Springer, Berlin, 2003
15. Partielle Differentialgleichungen der Geometrie und der Physik. Bd. 1: Grundlagen und Integraldarstellungen. Springer, Berlin, 2004. Bd. 2: Funktionalanalytische Lösungsmethoden. Springer, Berlin, 2005
16. Partial equations. Vol. 1: Foundations and integral representation. Vol. 2: Functional analytic methods. Springer Universitext, Berlin, 2006
17. Un problème aux limites mixte des surfaces minimales avec une multiple projection plane et le dessin optimal des escaliers tournants. To appear 2010/2011 in Analyse Non Linéaire

Schauder, J.
1. Potentialtheoretische Untersuchungen. I. Math. Z. **33**, 602–640 (1931)
2. Über lineare elliptische Differentialgleichungen zweiter Ordnung. Math. Z. **38**, 257–282 (1934)

Schikorra, A.
1. A remark on gauge transformations and the moving frame method. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **27**, 503–515 (2010)

Schlesinger, L.
1. Handbuch der Theorie der linearen Differentialgleichungen. Band I, II.1, II.2. Teubner, Leipzig, 1895
2. Über die Lösungen gewisser linearer Differentialgleichungen als Funktionen der singulären Punkte. J. Reine Angew. Math. **129**, 287–294 (1905)
3. Vorlesungen über lineare Differentialgleichungen. Teubner, Leipzig, 1908
4. Einführung in die Theorie der gewöhnlichen Differentialgleichungen auf funktionentheoretischer Grundlage. de Gruyter, Berlin, 1922

Schneider, R.
1. A note on branch points of minimal surfaces. Proc. Am. Math. Soc. **17**, 1254–1257 (1966)
2. Ein Eindeutigkeitssatz zum Plateauschen Problem. Preprint, 1969 (unpublished)

Schoen, R.
1. A remark on minimal hypercones. Proc. Natl. Acad. Sci. USA **79**, 4523–4524 (1982)
2. Estimates for stable minimal surfaces in three dimensional manifolds. In: Seminar on minimal submanifolds. Ann. Math. Stud. **103**, pp. 111–126. Princeton University Press, Princeton, 1983
3. Uniqueness, symmetry, and embedded minimal surfaces. J. Differ. Geom. **18**, 791–809 (1983)

Schoen, R., Simon, L.
1. Regularity of stable minimal hypersurfaces. Commun. Pure Appl. Math. **34**, 741–797 (1981)
2. Regularity of simply connected surfaces with quasiconformal Gauss map. In: Seminar on minimal submanifolds. Ann. Math. Stud. **103**, pp. 127–145. Princeton University Press, Princeton, 1983

Schoen, R., Simon, L., Yau, S.-T.
1. Curvature estimates for minimal hypersurfaces. Acta Math. **134**, 275–288 (1974)

Schoen, R., Yau, S.-T.
1. On univalent harmonic maps between surfaces. Invent. Math. **44**, 265–278 (1978)
2. Existence of incompressible minimal surfaces and the topology of three-dimensional manifolds with non-negative scalar curvature. Ann. Math. **110**, 127–142 (1979)

3. On the proof of the positive mass conjecture in general relativity. Commun. Math. Phys. **65**, 45–76 (1979)
4. Compact group, actions and the topology of manifolds with non-positive curvature. Topology **18**, 361–380 (1979)
5. Proof of the mass theorem II. Commun. Math. Phys. **79**, 231–260 (1981)

Schubert, H.
1. Topologie. Teubner, Stuttgart, 1971

Schüffler, K.
1. Stabilität mehrfach zusammenhängender Minimalflächen. Manuscr. Math. **30**, 163–197 (1979)
2. Isoliertheit und Stabilität von Flächen konstanter mittlerer Krümmung. Manuscr. Math. **40**, 1–15 (1982)
3. Jacobifelder zu Flächen konstanter mittlerer Krümmung. Arch. Math. **41**, 176–182 (1983)
4. Eine globalanalytische Behandlung des Douglas'schen Problems. Manuscr. Math. **48**, 189–226 (1984)
5. Zur Fredholmtheorie des Riemann–Hilbert-Operators. Arch. Math. **47**, 359–366 (1986)
6. Function theory and index theory for minimal surfaces of genus 1. Arch. Math. **48**, Part I: 250–266, II: 343–352, III: 446–457 (1987)
7. On holomorphic functions on Riemann surfaces and the Riemann–Hilbert problem. Analysis **9**, 283–296 (1989)
8. Minimalflächen auf Möbius-Bändern. Z. Anal. Anwend. **9**, 503–517 (1990)

Schüffler, K., Tomi, F.
1. Ein Indexsatz für Flächen konstanter mittlerer Krümmung. Math. Z. **182**, 245–258 (1983)

Schulz, F.
1. Regularity theory for quasilinear elliptic systems and Monge–Ampère equations in two dimensions. Lect. Notes Math. **1445**. Springer, Berlin, 1990

Schwab, D.
1. Hypersurfaces of prescribed mean curvature in central projection I, II. Arch. Math. **82**, 245–262 (2004) and Arch. Math. 84, 171–182 (2005)
2. Interior regularity of conical capillary surfaces. Preprint, Universität Duisburg-Essen, 2005

Schwarz, H.A.
1. Fortgesetzte Untersuchungen über spezielle Minimalflächen. Monatsberichte der Königlichen Akad. Wiss. Berlin, 3–27 (1872). Gesammelte Math. Abhandlungen I, 126–148 (1890)
2. Gesammelte Mathematische Abhandlungen, Band I und II. Springer, Berlin, 1890
3. Zur Theorie der Minimalflächen, deren Begrenzung aus geradlinigen Strecken besteht. Sitzungsber. K. Preuß. Akad. Wiss. Berl., Phys.-Math. Kl. 1237–1266 (1894)

Seidel, W.
1. Über die Ränderzuordnung bei konformen Abbildungen. Math. Ann. **104**, 183–243 (1931)

Seifert, H.
1. Minimalflächen von vorgegebener topologischer Gestalt. Sitzungsber. Heidelberg Akad. Wiss., Math.-Nat. Wiss. Kl. 5–16 (1974)

Seifert, H., Threlfall, W.
1. Lehrbuch der Topologie. Teubner, Leipzig, 1934. Reprint: Chelsea, New York
2. Variationsrechnung im Großen. Teubner, Leipzig, 1938

Serrin, J.

1. A priori estimates for solutions of the minimal surface equation. Arch. Ration. Mech. Anal. **14**, 376–383 (1963)
2. Removable singularities of elliptic equations, II. Arch. Ration. Mech. Anal. **20**, 163–169 (1965)
3. The Dirichlet problem for quasilinear equations with many independent variables. Proc. Natl. Acad. Sci. USA **58**, 1829–1835 (1967)
4. The problem of Dirichlet for quasilinear elliptic equations with many independent variables. Philos. Trans. R. Soc. Lond., Ser. A **264**, 413–496 (1969)
5. On surfaces of constant mean curvature which span a given space curve. Math. Z. **112**, 77–88 (1969)

Shiffman, M.

1. The Plateau problem for minimal surfaces which are relative minima. Ann. Math. (2) **39**, 309–315 (1938)
2. The Plateau problem for non-relative minima. Ann. Math. (2) **40**, 834–854 (1939)
3. The Plateau problem for minimal surfaces of arbitrary topological structure. Am. J. Math. **61**, 853–882 (1939)
4. Unstable minimal surfaces with any rectifiable boundary. Proc. Natl. Acad. Sci. USA **28**, 103–108 (1942)
5. Unstable minimal surfaces with several boundaries. Ann. Math. (2) **43**, 197–222 (1942)
6. On the isoperimetric inequality for saddle surfaces with singularities. In: Studies and essays presented to R. Courant, pp. 383–394. Interscience, New York, 1948
7. On surfaces of stationary area bounded by two circles, or convex curves, in parallel planes. Ann. Math. **63**, 77–90 (1956)
8. Instability for double integral problems in the calculus of variations. Ann. Math. **45**, 543–576 (1944)

Simader, C.G.

1. Equivalence of weak Dirichlet's principle, the method of weak solutions, and Perron's method towards classical solutions of Dirichlet's problem for harmonic functions. Math. Nachr. **279**, 415–430 (2006)

Simões, P.

1. On a class of minimal cones in $\mathbb{R}^n$. Bull. Am. Math. Soc. **80**, 488–489 (1974)

Simon, L.

1. Remarks on curvature estimates for minimal hypersurfaces. Duke Math. J. **43**, 545–553 (1976)
2. A Hölder estimate for quasiconformal maps between surfaces in Euclidean space. Acta Math. **139**, 19–51 (1977)
3. On a theorem of de Giorgi and Stampacchia. Math. Z. **155**, 199–204 (1977)
4. On some extensions of Bernstein's theorem. Math. Z. **154**, 265–273 (1977)
5. Equations of mean curvature type in 2 independent variables. Pac. J. Math. **69**, 245–268 (1977)
6. Isolated singularities of minimal surfaces. In: Proc. Centre Math. Anal. **1**, pp. 70–100. Australian National University, Centre for Mathematical Analysis, Canberra, Australia, 1982
7. Asymptotics for a class of nonlinear evolution equations with applications to geometric problems. Ann. Math. (2) **118**, 525–571 (1983)
8. Lectures on geometric measure theory. In: Proc. Centre Math. Anal. **3**. Australian National University, Centre for Mathematical Analysis, Canberra, Australia, 1984
9. Survey lectures on minimal submanifolds. In: Seminar on minimal submanifolds. Ann. Math. Stud. **103**, pp. 3–52. Princeton University Press, Princeton, 1983

10. Asymptotic behaviour of minimal graphs over exterior domains. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **4**, 231–242 (1987)
11. Entire solution of the minimal surface equation. J. Differ. Geom. **30**, 643–688 (1989)
12. A strict maximum principle for area minimizing hypersurfaces. J. Differ. Geom. **26**, 327–335 (1987)
13. Regularity of capillary surfaces over domains with corners. Pac. J. Math. **88**(2), 363–377 (1980)
14. Asymptotics for exterior solutions of quasilinear elliptic equations. In: Berrick, Loo, Wang (eds.) Proceedings of the Pacific Rim Geometry Conference, University of Singapore, 1994. de Gruyter, Berlin, 1997
15. Asymptotic behaviour of minimal submanifolds and harmonic maps. Research report CMA, R51-84, Australian National University, Canberra
16. Growth properties for exterior solutions of quasilinear elliptic equations. Research report CMA, R17-89, Australian National University, Canberra
17. The minimal surface equation. In: Osserman, R. (ed.) Geometry V, Minimal surfaces. Encycl. Math. Sci. **90**, pp. 239–266. Springer, Berlin, 1997
18. Lower growth estimates for solutions of the minimal surface equation. In preparation

Simon, L., Smith, F.

1. On the existence of embedded minimal 2-spheres in the 3-sphere, endowed with an arbitrary metric. Published in the thesis of F. Smith, Melbourne University, 1983

Simons, J.

1. Minimal varieties in Riemannian manifolds. Ann. Math. (2) **88**, 62–105 (1968)
2. Minimal cones, Plateau's problem, and the Bernstein conjecture. Proc. Natl. Acad. Sci. USA **58**, 410–411 (1967)

Sinclair, E.

1. On the minimum surface of revolution in the case of one variable end point. Ann. Math. (2) **8**, 177–188 (1906–1907)
2. The absolute minimum in the problem of the surface of revolution of minimum area. Ann. Math. (2) **9**, 151–155 (1907–1908)
3. Concerning a compound discontinuous solution in the problem of the surface of revolution of minimum area. Ann. Math. (2) **10**, 55–80 (1908–1909)

Smyth, B.

1. Stationary minimal surfaces with boundary on a simplex. Invent. Math. **76**, 411–420 (1984)

Söllner, M.

1. Über die Struktur der Lösungsmenge des globalen Plateau-Problems bei Flächen konstanter mittlerer Krümmung. Dissertation, Bochum, 1982
2. Plateau's problem for surfaces of constant mean curvature from a global point of view. Manuscr. Math. **43**, 191–217 (1983)

Solomon, B.

1. On the Gauss map of an area-minimizing hypersurface. J. Differ. Geom. **19**, 221–232 (1984)

Spanier, E.H.

1. Algebraic topology. McGraw-Hill, New York, 1966

Spivak, M.

1. A comprehensive introduction to differential geometry. 5 vols., 2nd edn. Publish or Perish, Berkeley, 1979

Springer, G.

1. Introduction to Riemann surfaces. Addison-Wesley, Reading, 1957

Spruck, J.
1. Infinite boundary value problems for surfaces of constant mean curvature. Arch. Ration. Mech. Anal. **49**, 1–31 (1972)
2. Gauss curvature estimates for surfaces of constant mean curvature. Commun. Pure Appl. Math. **27**, 547–557 (1974)
3. Remarks on the stability of minimal submanifolds of $\mathbb{R}^n$. Math. Z. **144**, 169–174 (1975)

Stäckel, P.
1. Gauß als Geometer. In: Gauß, Werke Bd. 10.2
2. Über bedingte Biegungen krummer Flächen. Jahresber. Dtsch. Math.-Ver. **1**, 70 (1890–91)

Steffen, K.
1. Flächen konstanter mittlerer Krümmung mit vorgegebenem Volumen oder Flächeninhalt. Arch. Ration. Mech. Anal. **49**, 99–128 (1972)
2. Ein verbesserter Existenzsatz für Flächen konstanter mittlerer Krümmung. Manuscr. Math. **6**, 105–139 (1972)
3. Isoperimetric inequalities and the problem of Plateau. Math. Ann. **222**, 97–144 (1976)
4. On the existence of surfaces with prescribed mean curvature and boundary. Math. Z. **146**, 113–135 (1976)
5. On the nonuniqueness of surfaces with prescribed constant mean curvature spanning a given contour. Arch. Ration. Mech. Anal. **94**, 101–122 (1986)
6. Parametric surfaces of prescribed mean curvature. In: Lect. Notes Math. **1713**, pp. 211–265. Springer, Berlin, 1996

Steffen, K., Wente, H.
1. The non-existence of branch points in solutions to certain classes of Plateau type variational problems. Math. Z. **163**, 211–238 (1978)

Stein, E.M.
1. Singular integrals and differentiability properties of functions. Princeton University Press, Princeton, 1970

Stenius, E.
1. Ueber Minimalflächen, deren Begrenzung von zwei Geraden und einer Fläche gebildet wird. Druckerei d. Finn. Litt.-Ges., Helsingfors, 1892

Stephens, B.K.
1. Existence of thread-wire minimizers, with quantitative estimate. Preprint, 2008
2. Near-wire thread-wire surfaces: Lipschitz regularity and localization. Preprint, 2008
3. Local dominates global: C^1 regularity of near-wire thread wire minimizers. Preprint, 2008
4. Small $C^{1,1}$ thread-wire surfaces and a finiteness conjecture. Preprint, 2008

Stone, A.
1. On the isoperimetric inequality on a minimal surface. Calc. Var. Partial Differ. Equ. **17**, 369–391 (2003)

Ströhmer, G.
1. Instabile Minimalflächen in Riemannschen Mannigfaltigkeiten nichtpositiver Schnittkrümmung. J. Reine Angew. Math. **315**, 16–39 (1980)
2. Instabile Flächen vorgeschriebener mittlerer Krümmung. Math. Z. **174**, 119–133 (1980)
3. Instabile Minimalflächen mit halbfreiem Rand. Analysis **2**, 315–335 (1982)
4. Instabile Lösungen der Eulerschen Gleichungen gewisser Variationsprobleme. Arch. Ration. Mech. Anal. **79**, 219–239 (1982)
5. Instabile Lösungen der Eulerschen Gleichungen gewisser Variationsprobleme. Arch. Ration. Mech. Anal. **79**, 219–239 (1982)

Struik, D.J.
1. Lectures on classical differential geometry. Addison-Wesley, Reading, 1950

Struwe, M.
1. Multiple solutions of differential equations without the Palais–Smale condition. Math. Ann. **261**, 399–412 (1982)
2. Quasilinear elliptic eigenvalue problems. Comment. Math. Helv. **58**, 509–527 (1983)
3. On a free boundary problem for minimal surfaces. Invent. Math. **75**, 547–560 (1984)
4. On a critical point theory for minimal surfaces spanning a wire in $\mathbb{R}^n$. J. Reine Angew. Math. **349**, 1–23 (1984)
5. Large H-surfaces via the mountain-pass-lemma. Math. Ann. **270**, 441–459 (1985)
6. On the evolution of harmonic mappings. Comment. Math. Helv. **60**, 558–581 (1985)
7. Nonuniqueness in the Plateau problem for surfaces of constant mean curvature. Arch. Ration. Mech. Anal. **93**, 135–157 (1986)
8. A Morse theory for annulus-type minimal surfaces. J. Reine Angew. Math. **368**, 1–27 (1986)
9. The existence of surfaces of constant mean curvature with free boundaries. Acta Math. **160**, 19–64 (1988)
10. Heat flow methods for harmonic maps of surfaces and applications to free boundary problems. In: Cardoso, Figueiredo, Iório-Lopes (eds.) Partial differential equations. Lect. Notes Math. **1324**, pp. 293–319. Springer, Berlin, 1988
11. Plateau's problem and the calculus of variations. Ann. Math. Stud. **35**. Princeton University Press, Princeton, 1988
12. Applications of variational methods to problems in the geometry of surfaces. In: Hildebrandt, S., Leis, R. (eds.) Partial differential equations and calculus of variations. Lect. Notes Math. **1357**, pp. 359–378. Springer, Berlin, 1988
13. Variational methods. Applications to nonlinear partial differential equations and Hamiltonian systems. Ergeb. Math. Grenzgebiete **34**. Springer, Berlin, 1996
14. Multiple solutions to the Dirichlet problem for the equation of prescribed mean curvature. In: Rabihowitz, P.H., Zehnder, E. (eds.) Analysis et cetera. pp. 639–666. Academic Press, Boston, 1990
15. Minimal surfaces of higher genus and general critical type. In: Chang et al. (eds.) Proceedings of Int. Conf. on Microlocal and Nonlinear Analysis, Nankai Institute. World Scientific, Singapore, 1992
16. Das Plateausche Problem. Jahresber. Dtsch. Math.-Ver. **96**, 101–116 (1994)

Strzelecki, P.
1. A new proof of regularity of weak solutions of the H-surface equation. Calc. Var. Partial Differ. Equ. **16**, 227–242 (2003)

Tausch, E.
1. A class of variational problems with linear growth. Math. Z. **164**, 159–178 (1978)
2. The n-dimensional least area problem for boundaries on a convex cone. Arch. Ration. Mech. Anal. **75**, 407–416 (1981)

Thompson, D'Arcy W.
1. On growth and form, abridged edn. Cambridge University Press, Cambridge, 1969

Thomson, W.
1. On the division of space with minimum partitional area. Acta Math. **11**, 121–134 (1887/88)

Toda, M.
1. On the existence of H-surfaces into Riemannian manifolds. Calc. Var. Partial Differ. Equ. **5**, 55–83 (1997)

Tolksdorf P.

1. A parametric variational principle for minimal surfaces of varying topological type. J. Reine Angew. Math. **345**, 16–49 (1984)
2. On minimal surfaces with free boundaries in given homotopy classes. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **2**, 157–165 (1985)

Tomi, F.

1. Ein einfacher Beweis eines Regularitätssatzes für schwache Lösungen gewisser elliptischer Systeme. Math. Z. **112**, 214–218 (1969)
2. Ein teilweise freies Randwertproblem für Flächen vorgeschriebener mittlerer Krümmung. Math. Z. **115**, 104–112 (1970)
3. Minimal surfaces and surfaces of prescribed mean curvature spanned over obstacles. Math. Ann. **190**, 248–264 (1971)
4. Variationsprobleme vom Dirichlet-Typ mit einer Ungleichung als Nebenbedingung. Math. Z. **128**, 43–74 (1972)
5. A perturbation theorem for surfaces of constant mean curvature. Math. Z. **141**, 253–264 (1975)
6. On the local uniqueness of the problem of least area. Arch. Ration. Mech. Anal. **52**, 312–318 (1973)
7. Bemerkungen zum Regularitätsproblem der Gleichung vorgeschriebener mittlerer Krümmung. Math. Z. **132**, 323–326 (1973)
8. On the finite solvability of Plateau's problem. In: Lect. Notes Math. **597**, pp. 679–695. Springer, Berlin, 1977
9. Plateau's problem for embedded minimal surfaces of the type of the disc. Arch. Math. **31**, 374–381 (1978)
10. A finiteness result in the free boundary value problem for minimal surfaces. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **3**, 331–343 (1986)
11. Plateau's problem for minimal surfaces with a catenoidal end. Arch. Math. **59**, 165–173 (1978)
12. Über elliptische Differentialgleichungen 4. Ordnung mit einer starken Nichtlinearität. Gött. Nachr. **3**, 33–42 (1976)
13. Plateau's problem for infinite contours. Analysis **29**, 155–167 (2009)

Tomi, F., Tromba, A.J.

1. Extreme curves bound an embedded minimal surface of disk type. Math. Z. **158**, 137–145 (1978)
2. On the structure of the set of curves bounding minimal surfaces of prescribed degeneracy. J. Reine Angew. Math. **316**, 31–43 (1980)
3. On Plateau's problem for minimal surfaces of higher genus in $\mathbb{R}^3$. Bull. Am. Math. Soc. **13**, 169–171 (1985)
4. A geometric proof of the Mumford compactness theorem. In: Chern, S.S. (ed.) Proc. of the DD7 Symposium on Partial Differential Equations, Nankai University, 1986. Lect. Notes Math. **1306**, pp. 174–181. Springer, Berlin, 1986
5. Existence theorems for minimal surfaces of non-zero genus spanning a contour. Mem. Am. Math. Soc. **71** (1988). [Appeared previously as preprint No. 5, Heidelberg, 1987 under the title "On Plateau's problem for minimal surfaces of prescribed topological type."]
6. The index theorem for higher genus minimal surfaces. Mem. Am. Math. Soc. **560**, 78 pp., 1995

Tomi, F., Ye, R.

1. The exterior Plateau problem. Math. Z. **205**, 233–245 (1990)

Tonelli, L.

1. Sul problema di Plateau, I & II. Rend. R. Accad. dei Lincei **24**, 333–339, 393–398 (1936) (cf. also: Opere scelte, Vol. III, 328–341)

Toponogov, W.A.

1. An isoperimetric inequality for surfaces whose Gauss curvature is bounded from above. Sib. Mat. Zh. **10**, 144–157 (1967) (in Russian). [Engl. translation in Sib. Math. J. **10**, 104–113 (1969).]

Toth, G.

1. Harmonic and minimal maps with applications in geometry and physics. Ellis Horwood, Chichester, 1984

Tromba, A.J.

1. Some theorems on Fredholm maps. Proc. Am. Math. Soc. **34**, 578–585 (1972)
2. Almost Riemannian structures on Banach manifolds, the Morse lemma, and the Darboux theorem. Can. J. Math. **28**, 640–652 (1976)
3. On the numbers of solutions to Plateau's problem. Bull. Am. Math. Soc. **82** (1976)
4. The set of curves of uniqueness for Plateau's problem has a dense interior. Lect. Notes Math. **597**. Springer, Berlin, 1977
5. On the number of simply connected minimal surfaces spanning a curve. Mem. Am. Math. Soc. No. 194, **12** (1977)
6. The Morse–Sard–Brown theorem for functionals and the problem of Plateau. Am. J. Math. **99**, 1251–1256 (1977)
7. The Euler characteristic of vector fields on Banach manifolds and a globalization of Leray–Schauder degree. Adv. Math. **28**, 148–173 (1978)
8. On Plateau's problem for minimal surfaces of higher genus in $\mathbb{R}^n$. Preprint No. 580, SFB 72, Bonn, 1983
9. A sufficient condition for a critical point of a functional to be a minimum and its application to Plateau's problem. Math. Ann. **263**, 303–312 (1983)
10. Degree theory on oriented infinite dimensional varieties and the Morse number of minimal surfaces spanning a curve in $\mathbb{R}^n$. Part II: $n = 3$. Manuscr. Math. **48**, 139–161 (1984)
11. Degree theory on oriented infinite dimensional varieties and the Morse number of minimal surfaces spanning a curve in $\mathbb{R}^n$. Part I: $n \geq 4$. Trans. Am. Math. Soc. **290**, 385–413 (1985)
12. On the Morse number of embedded and non-embedded minimal immersions spanning wires on the boundary of special bodies in $\mathbb{R}^3$. Math. Z. **188**, 149–170 (1985)
13. On a natural algebraic affine connection on the space of almost complex structures and the curvature of Teichmüller space with respect to its Weil–Petersson metric. Manuscr. Math. **56**, 475–497 (1986)
14. New results in the classical Plateau problem. In: Proc. Int. Congress Math. Berkeley, 1986
15. On an energy function for the Weil–Petersson metric on Teichmüller space. Manuscr. Math. **59**, 249–260 (1987)
16. A proof of the Douglas theorem on the existence of disc-like minimal surfaces spanning Jordan contours in $\mathbb{R}^n$. Astérisque **154–155**, 39–50 (1987)
17. Global analysis and Teichmüller theory. In: Tromba, A. (ed.) Seminar on new results in nonlinear partial differential equations. Aspects of Mathematics **10**. Vieweg, Braunschweig, 1987
18. Open problems in the degree theory for disc minimal surfaces spanning a curve in $\mathbb{R}^3$. In: Hildebrandt, S., Leis, R. (eds.) Partial differential equations and calculus of variations. Lect. Notes Math. **357**, pp. 379–401. Springer, Berlin, 1988

19. Existence theorems for minimal surfaces of non-zero genus spanning a contour. Mem. Am. Math. Soc. No. 382, vol. **1** (1988)
20. Seminar on new results in nonlinear partial differential equations. Aspects of Mathematics **E10**. Vieweg, Braunschweig, 1987
21. Intrinsic third derivatives for Plateau's problem and the Morse inequalities for disc minimal surfaces in $\mathbb{R}^3$. Calc. Var. Partial Differ. Equ. **1**, 335–353 (1993)
22. Dirichlet's energy on Teichmüller's moduli space and the Nielsen realization problem. Math. Z. **222**, 451–464 (1996)
23. On the Levi form for Dirichlet's energy on Teichmüller's moduli space. Appendix E in Tromba [19]
24. Teichmüller theory in Riemannian geometry. Lect. Notes Math. Birkhäuser, Basel, 1992 (based on notes taken by J. Denzler, ETH Zürich)
25. The Morse theory of two-dimensional closed branched minimal surfaces and their generic non-degeneracy in Riemann manifolds. Calc. Var. Partial Differ. Equ. **10**, 135–170 (2000)
26. A general approach to Morse theory. J. Differ. Geom. **11**, 47–85 (1977)
27. Fredholm vector fields and a transversality theorem. J. Funct. Anal. (1976)
28. Dirichlet's energy on Teichmüller's moduli space is strictly pluri-subharmonic. In: Jost, J. (ed.) Geometric analysis and calculus of variations, pp. 315–341. International Press, Somerville, 1996
29. Smale and nonlinear analysis: A personal perspective. In: Hirsch, M.W., Marsden, J.E., Shub, M. (eds.) From topology to computation. Proceedings of the Smalefest, pp. 481–492. Springer, New York, 1993

Tsuji, M.
1. On a theorem of F. and M. Riesz. Proc. Imp. Acad. (Tokyo) **18**, 172–175 (1942)
2. Potential theory in modern function theory. Maruzen, Tokyo, 1959

Turowski, G.
1. Nichtparametrische Minimalflächen vom Typ des Kreisrings und ihr Verhalten längs Kanten der Stützfläche. Thesis, Bonn, 1997. Bonner Math. Schr. **307**. Mathematisches Institut der Universität Bonn, Bonn, 1998
2. Existence of doubly connected minimal graphs in singular boundary configurations. Asymptot. Anal. **23**, 239–256 (2000)
3. Behaviour of doubly connected minimal surfaces at the edges of the support surface. Arch. Math. **77**, 278–288 (2001)

Uhlenbeck, K.
1. Closed minimal surfaces in hyperbolic 3-manifolds. In: Seminar on minimal submanifolds. Ann. Math. Stud. **103**, pp. 147–168. Princeton University Press, Princeton, 1983

Umehara, M., Yamada, K.
1. Complete surfaces of constant mean curvature -1 in the hyperbolic 3-space. Ann. Math. **137**, 611–638 (1993)
2. A parametrization of the Weierstrass formulae minimal surfaces in $\mathbb{R}^3$ into the hyperbolic 3-space. J. Reine Angew. Math. **432**, 93–116 (1992)

Van der Mensbrugghe, G.
1. Sur la tension des lames liquides. Bull. Acad. R. Sci. Brux. (2) **22**, 270–276, 308–328 (1866)
2. Discussion et réalisation expérimentale d'une surface parituliѐre à courbure moyenne nulle. Bull. Acad. R. Sci. Brux. (2) **21**, 552–566 (1866)
3. Sur la tension des lames liquide. 2me note. Bull. Acad. R. Sci. Brux. (2) **23**, 448–465 (1867)

Vekua, I.N.
1. Generalized analytic functions. Pergamon Press, Oxford, 1962
2. Verallgemeinerte analytische Funktionen. Akademie-Verlag, Berlin, 1963

Vogel, T.I.
1. Stability of a drop trapped between two parallel planes. Preliminary Report, Texas A&M University, 1985

Walter R.
1. Explicit examples to the H-problem of Heinz Hopf. Geom. Dedic. **23**, 187–213 (1987)
2. Constant mean curvature tori with spherical curvature lines in noneuclidean geometry. Manuscr. Math. **63**, 343–363 (1989)

Warschawski, S.E.
1. Über einen Satz von O.D. Kellogg. Nachr. Akad. Wiss. Gött., II. Math. Phys. Kl., 73–86 (1932)
2. Über das Randverhalten der Abbildungsfunktion bei konformer Abbildung. Math. Z. **35**, 321–456 (1932)
3. On the higher derivatives at the boundary in conformal mapping. Trans. Am. Math. Soc. **38**, 310–340 (1935)
4. On a theorem of L. Lichtenstein. Pac. J. Math. **5**, 835–839 (1955)
5. On the differentiability at the boundary in conformal mapping. Proc. Am. Math. Soc. **12**, 614–620 (1961)
6. Boundary derivatives of minimal surfaces. Arch. Ration. Mech. Anal. **38**, 241–256 (1970)

Weierstraß, K.
1. Mathematische Werke **3**. Mayer & Müller, Berlin, 1903
2. Fortsetzung der Untersuchung über die Minimalflächen. Monatsber. K. Akad. Wiss., 855–856, December 1866 und Mathematische Werke **3**, pp. 219–220. Mayer & Müller, Berlin, 1903
3. Über eine besondere Gattung von Minimalflächen. Monatsber. K. Akad. Wiss., 511–518, August 1887 und Math. Werke **3**, pp. 241–247. Mayer & Müller, Berlin, 1903
4. Analytische Bestimmung einfach zusammenhängender Minimalflächen, deren Begrenzung aus geradlinigen, ganz im endlichen liegenden Strecken besteht. In: Math. Werke **3**, pp. 221–238. Mayer & Müller, Berlin, 1903
5. Untersuchungen über die Flächen, deren mittlere Krümmung überall gleich Null ist. In: Math. Werke **3**, pp. 39–52. Mayer & Müller, Berlin, 1903

Weingarten, J.
1. Ueber eine Klasse aufeinander abwickelbarer Flächen. J. Reine Angew. Math. **59**, 382–393 (1861)
2. Ueber die durch eine Gleichung der Form $X + Y + Z = 0$ darstellbaren Minimalflächen. Nachr. K. Ges. Wiss. Univ. Gött. 272–275 (1887)
3. Ueber particuläre Integrale der Differentialgleichung $\partial^2 V/\partial x^2 + \partial^2 V/\partial y^2 + \partial^2 V/\partial z^2 = 0$ und eine mit der Theorie der Minimalflächen zusammenhängende Gattung von Flüssigkeitsbewegungen. Nachr. K. Ges. Wiss. Univ. Gött. 313–335 (1890)

Wente, H.
1. An existence theorem for surfaces of constant mean curvature. J. Math. Anal. Appl. **26**, 318–344 (1969)
2. A general existence theorem for surfaces of constant mean curvature. Math. Z. **120**, 277–288 (1971)
3. An existence theorem for surfaces in equilibrium satisfying a volume constraint. Arch. Ration. Mech. Anal. **50**, 139–158 (1973)
4. The Dirichlet problem with a volume constraint. Manuscr. Math. **11**, 141–157 (1974)

5. The differential equation $\Delta x = 2Hx_u \wedge x_v$ with vanishing boundary values. Proc. Am. Math. Soc. **50**, 131–137 (1975)
6. The Plateau problem for symmetric surfaces. Arch. Ration. Mech. Anal. **60**, 149–169 (1976)
7. Large solutions to the volume constrained Plateau problem. Arch. Ration. Mech. Anal. **75**, 59–77 (1980)
8. Counterexample to a question of H. Hopf. Pac. J. Math. **121**, 193–243 (1986)
9. Twisted tori of constant mean curvature in $\mathbb{R}^3$. In: Tromba, A.J. (ed.) Seminar on new results in non-linear partial differential equations, Max-Planck-Institut für Mathematik, pp. 1–36. Vieweg, Braunschweig, 1987
10. A note on the stability theorem of J.L. Barbosa and M. do Carmo for closed surfaces of constant mean curvature. Pac. J. Math. **147**, 375–379 (1991)
11. The Plateau problem for boundary curves with connectors. In: Jost, J. (ed.) Geometric analysis and the calculus of variations, pp. 343–359. International Press, Cambridge, 1996
12. Constant mean curvature immersions of Enneper type. Mem. Am. Math. Soc. Nr. 47, 83 pp., 1992

Werner, H.
1. Das Problem von Douglas für Flächen konstanter mittlerer Krümmung. Math. Ann. **133**, 303–319 (1957)
2. The existence of surfaces of constant mean curvature with arbitrary Jordan curves as assigned boundary. Proc. Am. Math. Soc. **11**, 63–70 (1960)

White, B.
1. Existence of least area mappings of N-dimensional domains. Ann. Math. **118**, 179–185 (1983)
2. Tangent cones to two-dimensional area-minimizing currents are unique. Duke Math. J. **50**, 143–160 (1983)
3. The least area bounded by multiples of a curve. Proc. Am. Math. Soc. **90**, 230–232 (1984)
4. Mappings that minimize area in their homotopy classes. J. Differ. Geom. **20**, 433–446 (1984)
5. Generic regularity of unoriented two-dimensional area minimizing surfaces. Ann. Math. **121**, 595–603 (1985)
6. Homotopy classes in Sobolev spaces and energy minimizing maps. Bull., New Ser., Am. Math. Soc. **13**, 166–168 (1985)
7. Infima of energy functionals in homotopy classes of mappings. J. Differ. Geom. **23**, 127–142 (1986)
8. The space of m-dimensional surfaces that are stationary for a parametric integrand. Indiana Univ. Math. J. **30**, 567–602 (1987)
9. Curvature estimates and compactness theorems in 3-manifolds for surfaces that are stationary for parametric elliptic functionals. Invent. Math. **88**, 243–256 (1987)
10. Complete surfaces of finite total curvature. J. Differ. Geom. **26**, 315–316 (1987). Correction: J. Differ. Geom. **28**, 359–360 (1988)
11. Homotopy classes in Sobolev spaces and the existence of energy minimizing maps. Acta Math. **160**, 1–17 (1988)
12. Some recent developments in differential geometry. Math. Intel. **11**, 41–47 (1989)
13. New applications of mapping degrees to minimal surface theory. J. Differ. Geom. **29**, 143–162 (1989)
14. A new proof for the compactness theorem for integral currents. Comment. Math. Helv. **64**, 207–220 (1989)

15. Every metric of positive Ricci curvature on S^3 admits a minimal embedded torus. Bull. Am. Math. Soc. **21**, 71–75 (1989)
16. Existence of smooth embedded surfaces of prescribed topological type that minimize parametric even elliptic functionals on three-manifolds. J. Differ. Geom. **33**, 413–443 (1991)
17. On the topological type of minimal submanifolds. Topology **31**, 445–448 (1992)
18. The space of minimal submanifolds for varying Riemannian metrics. Indiana Univ. Math. J. **40**, 161–200 (1991)
19. Regularity of singular sets for Plateau-type problems. Preprint
20. The space of m-dimensional surfaces that are stationary for a parametric elliptic integral. Indiana Univ. Math. J. **36**, 567–602 (1987)
21. The bridge principle for stable minimal surfaces. Calc. Var. Partial Differ. Equ. **2**, 405–425 (1994)
22. The bridge principle for unstable and for singular minimal surfaces. Commun. Anal. Geom. **2**, 513–532 (1994)
23. Half of Enneper's surface minimizes area. In: Jost, J. (ed.) Geometric analysis and the calculus of variations, pp. 361–367. International Press, Somerville, 1996
24. Classical area minimizing surfaces with real-analytic boundaries. Acta Math. **179**, 295–305 (1997)
25. The space of minimal submanifolds for varying Riemannian metrics. Indiana Univ. Math. J. **40**, 161–200 (1991)

Whitehead, G.W.
1. Elements of homotopy theory. Springer, Berlin, 1978

Whittemore, J.K.
1. The isoperimetrical problem on any surface. Ann. Math. (2) **2**, 175–178 (1900–1901)
2. Minimal surfaces applicable to surfaces of revolution. Ann. Math. (2) **19**, 1–20 (1917–1918)
3. Spiral minimal surfaces. Trans. Am. Math. Soc. **19**, 315–330 (1918)
4. Associate minimal surfaces. Am. J. Math. **40**, 87–96 (1918)
5. Minimal surfaces containing straight lines. Ann. Math. (2) **22**, 217–225 (1921)

Widman, K.-O.
1. On the boundary behavior of solutions to a class of elliptic partial differential equations. Ark. Mat. **6**, 485–533 (1966)
2. Inequalities for the Green function of the gradient of solutions of elliptic differential equations. Math. Scand. **21**, 17–37 (1967)
3. Hölder continuity of solutions of elliptic systems. Manuscr. Math. **5**, 299–308 (1971)

Wienholtz, D.
1. Der Ausschluß von eigentlichen Verzweigungspunkten bei Minimalflächen vom Typ der Kreisscheibe. Diplomarbeit, Universität München. SFB 256, Universität Bonn, Lecture notes No. 37, 1996
2. Zum Ausschluß von Randverzweigungspunkten bei Minimalflächen. Bonner Math. Schr. **298**. Mathematisches Institut der Universität Bonn, Bonn, 1997
3. A method to exclude branch points of minimal surfaces. Calc. Var. Partial Differ. Equ. **7**, 219–247 (1998)

Wigley, N.M.
1. Development of the mapping function at a corner. Pac. J. Math. **15**, 1435–1461 (1965)

Williams, G.
1. The Dirichlet problem for the minimal surface equation with Lipschitz continuous boundary data. J. Reine Angew. Math. **354**, 123–140 (1984)

Winklmann, S.
1. Enclosure theorems for generalized mean curvature flows. Calc. Var. Partial Differ. Equ. **16**, 439–447 (2003)
2. Integral curvature estimates for F-stable hypersurfaces. Calc. Var. Partial Differ. Equ. **23**, 391–414 (2005)
3. Pointwise curvature estimates for F-stable hypersurfaces. Ann. Inst. Henri Poincaré, Anal. Non Linéaire **22**, 543–555 (2005)
4. Estimates for stable hypersurfaces of prescribed F-mean curvature. Manuscr. Math. **118**, 485–499 (2005)

Wohlgemuth, M.
1. Abelsche Minimalflächen. Diplomarbeit, Bonn, 1988
2. Higher genus minimal surfaces by growing handles out of a catenoid. Manuscr. Math. **70**, 397–428 (1991)

Wohlrab, O.
1. Einschließungssätze für Minimalflächen und Flächen mit vorgegebener mittlerer Krümmung. Bonner Math. Schr. **138**. Mathematisches Institut der Universität Bonn, Bonn, 1982
2. Zur numerischen Behandlung von parametrischen Minimalflächen mit halbfreien Rändern. Dissertation, Bonn, 1985
3. Die Berechnung und graphische Darstellung von Randwertproblemen für Minimalflächen. In: Jürgens, H., Saupe, D. (eds.) Visualisierung in Mathematik und Naturwissenschaften, Springer, Berlin, 1989

Wood, J.C.
1. Singularities of harmonic maps and applications of the Gauss–Bonnet formula. Am. J. Math. **99**, 1329–1344 (1977)

Yau, S.T.
1. Some function-theoretic properties of complete Riemannian manifolds and their applications to geometry. Indiana Univ. Math. J. **25**, 659–670 (1976)
2. Problem section. In: Seminar on differential geometry. Ann. Math. Stud. **102**, pp. 669–706. Princeton University Press, Princeton, 1982
3. Survey on partial differential equations in differential geometry. In: Seminar on differential geometry. Ann Math. Stud. **102**, pp. 3–72. Princeton University Press, Princeton, 1982
4. Minimal surfaces and their role in differential geometry. In: Global Riemannian geometry, pp. 99–103. Horwood, Chichester, 1984
5. Nonlinear analysis in geometry. Monogr. 33, Enseign. Math. 5–54 (1986)

Ye, R.
1. Randregularität von Minimalflächen. Diplomarbeit, Bonn, 1984
2. A priori estimates for minimal surfaces with free boundary which are not minima of the area. Manuscr. Math. **58**, 95–107 (1987)
3. On minimal surfaces of higher topology. Preprint, Stanford, 1988
4. Regularity of a minimal surface at its free boundary. Math. Z. **198**, 261–275 (1988)
5. Existence, regularity and finiteness of minimal surfaces with free boundary. SFB 256 preprint, No. 1, Bonn, 1987
6. On the existence of area-minimizing surfaces with free boundary. Math. Z. **206**, 321–331 (1991)
7. Construction of embedded area-minimizing surfaces via a topological type induction scheme. Calc. Var. Partial Differ. Equ. **19**, 391–420 (2004)

Young, L.C.
1. On the isoperimetric ratio for a harmonic surface. Proc. Lond. Math. Soc. (2) **49**, 396–408 (1947)
2. Some new methods in two-dimensional variational problems with special reference to minimal surfaces. Commun. Pure Appl. Math. **9**, 625–632 (1956)

Zeidler, E.
1. Applied functional analysis. Main principles and their applications. Appl. Math. Sci. **109**. Springer, New York, 1995

Ziemer, W.
1. Weakly differentiable functions. Sobolev spaces and functions of bounded variation. Graduate Texts Math. **120**. Springer, Berlin, 1989

Index

$\mathcal{F}$-minimal immersions, 432
$\mathcal{M}_{\mathrm{rot}}$, 311

A
Admissible boundary coordinate system centered at x_0, 132
Agmon, S., 78
Alexander, H., 434
Almgren, F.J., 437
Alt, H.W., 56, 58, 66, 483, 484
Approximation property ($\mathcal{A}$), 446
Assumption A, 237, 247, 260, 385–386
Assumption (A1), 215
Assumption (A2), 215
Assumption (A3), 228
Assumption (B), 132
Assumption B, 238
Asymptotic expansion, 117
Asymptotic expansion assuming (A1), 215
Asymptotic expansion assuming (A2), 216
Asymptotic expansion assuming (A3), 229
Asymptotic expansion at a boundary branch point, 189, 191, 193, 214
Athanassenas, M., 435

B
Barrier principle, 279, 314, 315
Beckenbach, E.F., 434
Beeson, M., 271
Blaschke, W., 433
Böhme, R., 431
Bombieri, E., 304, 437
Boundary class of a surface $X \in \mathcal{C}(S)$, 12
Boundary preserving variation of $\hat{X}$, 496
Boundary values $X|_C$ of finite total variation, 332
Branch points, 487
Branch points of even order, 476
Branch points of odd order, 476
Brézis, H., 211, 437
Bridge theorem, 113
Burago, Y.D., 434

C
$C^{1,1/2}$-regularity of a stationary point, 153
Caffarelli, L.A., 212
Carathéodory, C., 129
Carleman, T., 434
Catenary, 49
Characterization of the nonexceptional branch points, 506
Cheung, L.F., 113
Cheung's example, 113
Chord-arc condition, 114, 115, 118, 119, 125
Clarenz, U., 432
Class $\mathcal{C}^+(S)$, 19
Class $\mathcal{C}(S)$, 6
Class $\mathcal{C}(\Gamma, L)$, 445
Class $\mathcal{C}(\Gamma, S)$, 29
Class $\mathcal{C}(\Pi, S)$, 19, 57
Class $\mathcal{C}(S)$, 5
Classes $\mathcal{C}(\sigma, S)$, 13
Concentrations of the parametrization, 67
Condition of admissibility, 356
Cone theorem, 283, 290
Continuity of the first derivatives at the free boundary, 166
Convex hull theorem, 280, 305

U. Dierkes, S. Hildebrandt, A.J. Tromba, *Regularity of Minimal Surfaces*,
Grundlehren der mathematischen Wissenschaften 340,
DOI 10.1007/978-3-642-11700-8,

Coron, M., 437
Courant, R., 65, 201, 435
Courant's example, 206
Critical (or stationary) point of Dirichlet's integral, 29
Cut number $c(\Gamma)$, 517

D
Davids, N., 65, 66
De Giorgi, E., 304
Dierkes, U., 431, 432, 484
Differential $df(x)$, 297
Divergence $\text{div}_M X$, 298
Divergence theorem, 304
do Carmo, M., 296, 407
Douglas, J., 67
Douglas condition, 73
Douglis, S., 78
Duzaar, F., 431, 432, 437, 439
Dziuk, G., 204, 271, 276, 437

E
E. Schmidt's inequality, 219
Ecker, K., 431, 483, 484
Enclosure of M with respect to G, 291
Enclosure theorem, 279, 284, 315, 323, 405
Enclosure theorem I, 287
Enclosure theorem II, 293
Enclosure theorem III, 294
Estimate of the length of the free trace, 346, 356, 357, 435
Estimates for $g_{ik}(x)x^i$ and $\Gamma_{ik\ell}(x)x^i$, 423
$E(t) := D(\hat{Z}(t))$, 494
Exceptional branch point, 505
Existence for the obstacle problem, 380
Existence of H-surfaces spanning Γ, 399, 402
Experimental proof of the isoperimetric property of the circle, 435

F
False branch point, 58
Federer, H., 484
Feinberg, J.M., 346, 434
First variation formula, 386
Foliation by minimal submanifolds, 303
Forced Jacobi field, 489–491
Free boundary, 47
Free boundary on S, 34
Free-boundary problem of a configuration $\langle \Gamma, S \rangle$, 46
Frehse, J., 211
Function $d_s := \text{dist}(\cdot, S)$, 6

G
Gage, M., 437
Galileo, 433
Garnier, R., 271
Gauss–Bonnet formula for branched minimal surfaces, 193
Gauss–Bonnet theorem for pseudoregular surfaces, 194
Gauß(–Kronecker) curvature K, 300
Gauss's lemma, 419
Gehring's inequality, 437
Generalized admissible sequence for the problem $\mathcal{P}(\Pi, S)$, 23
Generalized Gauss–Bonnet formula, 195
Generalized minimizing sequence for the minimum problem $\mathcal{P}(\Pi, S)$, 24
Generator of a forced Jacobi field, 490
Generator of an inner forced Jacobi field, 490, 497, 498, 500, 501
Geometric inclusion principle, 279
Geometric inclusion principle for strong subsolutions, 322
Geometric maximum principle, 376
Gergonne, J.D., 45
Gerhardt, C., 211
Gericke, H., 433
Giaquinta, M., 212
Gilbarg, D., 76–78, 289, 316–318, 322, 325, 329, 358, 379, 384
Giusti, E., 212, 304
Global minimal surface, 339
Goldhorn, K., 203
Gornik, K., 211
Gradient estimates, 77, 89, 92, 99, 100
Gradient estimates at corners of Γ, 236, 247, 248
Gradient estimates at corners of $\langle \Gamma, S \rangle$, 236, 261
Gradient of f on M, 296
Greatest distance $g(A, B)$, 23
Green's function, 76
Gromoll, D., 296, 407
Gromov, M., 437
Grüter, M., 44, 67, 204, 368, 437
Gulliver, R., 58, 66, 379, 405, 431, 432, 437–439, 483, 484, 487
Gulliver–Lesley, 476

H

H-convex, 432
H-surface spanned by Γ, 372
H-surfaces, 279, 284
H. Lewy's regularity theorem, 107
Hamilton–Jacobi equation, 50
Harth, F.P., 66, 168
Hartman, P., 117, 271
Hartman–Wintner method, 271
Hartman–Wintner technique, 118, 189, 203, 213
Heinz, E., 202, 203, 211, 271, 374, 434, 437, 438
Hildebrandt, S., 66, 110, 126, 178, 201–204, 208–211, 316, 317, 368, 431, 434, 435, 437–439, 484
Hoffmann, D.A., 434
Hölder continuity for minima, 118
Hölder continuity for stationary surfaces, 130
Hölder continuity of stationary surfaces in $\langle\Gamma, S\rangle$, 272
Homotopy class of a boundary mapping, 10
Homotopy class of the boundary values $X|_C$, 12
Huisken, G., 431
Hyperboloid theorem, 282

I

Inclusion principle, 427
Index of a branch point, 502
Inner forced Jacobi field, 490
(Intrinsic) gradient of f, 296
Isoperimetric inequality, 332, 334, 340, 346, 434

J

Jacobi equation, 408
Jacobi field, 412
Jacobi field along a geodesic c, 408
Jacobi field estimates, 413
Jäger, W., 102, 178, 203, 204, 271
John, F., 77
Jorge, L.P., 432
Jost, J., 44, 67, 204, 271, 296, 407, 424

K

Karcher, H., 67, 439
Kaul, H., 208–210, 431, 434, 437, 439
Kellogg, O.D., 202
Kinderlehrer, D., 102, 202, 204, 209, 211, 212
Klingenberg, W., 296, 407
Kneser's transversality theorem, 303
Korn–Privalov theorem, 168
Kühnel, W., 296, 407
Küster, A., 65, 66, 434, 437
Kuwert, E., 66, 67, 72, 73, 484

L

L_2-estimates for $\nabla^2 X$ up to the free boundary, 154
L_2-estimates of the second derivatives, 394
L_s-estimates of the second derivatives, 395
λ-graph, 437
λ-graph condition, 347, 350, 356
Laplace–Beltrami operator, 298
Laplacian, 298
Lawson, H.B., 67
Length $l(\Sigma)$ of the free trace Σ, 205
Length of the free trace Σ, 347
Lesley, F.D., 202, 484
Levy, P., 432
Lewy, H., 116, 201, 203, 208, 211, 212, 437, 484
Li, P., 434
Lichtenstein, L., 202, 271
Linear isoperimetric inequality, 338, 434
Linking condition, 19
Linking number, 19

M

Marx, I., 271
Mean curvature H, 300
Mean curvature vector $\vec{H}$, 301
Meeks, W.H., 66
Meyer, W., 296, 407
Minimum problem $\mathcal{P}^+(S)$, 22
Minimum problem $\mathcal{P}(\Pi, S)$, 22
Monotonicity results, 115
Morgan, F., 434
Morrey, C.B., 5, 78, 110, 116, 168
Müller, F., 110, 116, 271

N

n-catenoids, 312
n-mean curvature, 314
Necessary condition for Γ to span an H-surface, 374
Necessary condition for existence, 309
Necessary condition of Heinz, 374

Necessary conditions for stationary minimal surfaces, 35
Nirenberg, L., 78, 116
Nitsche, J.C.C., 43, 66, 102, 201–204, 211, 212, 368, 432, 434, 435, 437, 484
Nonexceptional, 506
Nonexistence cones, 311
Nonexistence theorem, 284, 295, 313
Nonexistence theorems for multiply connected surfaces, 279
Nonoriented tangent, 192
Normal chart, 419
Normal form of a nonplanar minimal surface, 502
Normal space of M, 297

O

Obstacle problem, 371, 376, 379
Order of a branch point, 502
Oriented distance, 316
Oriented distance ρ, 317
Oriented tangent, 192
Osserman, R., 58, 293, 431, 434, 437, 476, 483, 484, 487
Otto, F., 442, 484

P

Painlevé, P., 202
Partially free boundary, 47
Partition problem, 280, 368
Pepe, L., 212
Picard's iteration method, 109
Pilz, R., 484
Pinkall, U., 67
Pitts, J., 44, 67
Plateau problem for H-surfaces in a Riemannian manifold, 429
Plateau problem for H-surfaces in $\mathbb{R}^3$, 402
Plateau problem for surfaces of prescribed mean curvature H, 399
Poisson kernel, 76
Potential theoretic results, 76
Principal coordinate system, 300
Principal curvatures, 299
Principal directions, 299
Pseudoregular surfaces, 194

Q

Quasiregular set, 380

R

R-sphere condition, 357, 358, 437
Radó, T., 431, 434
Regularity, 377
Regularity of a solution to the thread problem, 463
Regularity of class $C^{1,1/2}$ at the free boundary, 172
Rellich's problem, 437
Representation formulas, 83
Riemann normal coordinates, 418, 420, 421
Riesz, F., 201
Riesz, M., 201
Ritter, F., 65
Rivière, N.M., 212
Robbins, H., 435
Royden, H.L., 431, 483, 484, 487

S

Sasaki, S., 211
Sauvigny, F., 271
Schauder estimates, 78
Schiffer, M., 293, 431, 434
Schneider, R., 211
Schoen, R., 66, 434
Schwab, D., 431, 432
Schwarz, H.A., 45, 200, 271, 433
Schwarz–Weierstraß field theory, 303
Second fundamental form, 299
Separation of disks, 67
Serrin, J., 379
Shiffman, M., 271
Signorini problem, 117
Simon, L., 67, 437
Simons-cone, 304
Singular set, 194
Smith, F., 67
Smyth, B., 66
Soap films attaching smoothly, 169
Solution of $\mathcal{P}^+(S)$, 22
Solution of $\mathcal{P}(\Pi, S)$, 22
Solution of the thread problem $P(\Gamma, L)$, 447
Spruck, J., 379, 405, 431, 432, 438
Stampacchia, G., 208, 209, 211, 212
Stationary H-surfaces in the class $\mathcal{C}(S)$, 368
Stationary minimal surface
  first type, 28
  second type, 28

Stationary minimal surface with a free boundary on S, 34
Stationary minimal surfaces in a simplex, 39
Stationary minimal surfaces in convex bodies, 43
Stationary minimal surfaces of disk-type in a sphere, 41
Stationary point of Dirichlet's integral, 34, 115, 117, 134
Stationary within the configuration $\langle \Gamma, S \rangle$, 46
Steffen, K., 431, 432, 437–439
Stein, E.M., 78
Stephens, B.K., 484–485
Sterling, J., 67
Struwe, M., 44, 67, 437, 438
Supporting set, 6
Surface of least area, 28
System of balanced curves on S, 37

T
Tangent plane, 192
Tausch, E., 431
Theorem of D. Wienholtz, 504
Theorem of Korn and Privalov, 86
Theorem of Krust, 41
Thin obstacle problem, 117
Thread experiments, 443, 444
Thread problem, 73
Thread problem $\mathcal{P}(\Gamma, L)$, 442, 445
Tolksdorf, P., 66
Tomi, F., 55, 56, 66, 202, 203, 208, 399, 432
Tomi's regularity theorem, 116
Touching H-surfaces, 284, 285
Touching point theorem, 279
Touching points, 286
Transformed Dirichlet integral, 133
Tromba, A.J., 58
Trudinger, N., 76–78, 289, 316–318, 322, 325, 329, 358, 379, 384
True branch point, 58
Tsuji, M., 201
Tsuji's theorem, 201
Tubular μ-neighbourhood, 6
(Two-sided) R-sphere condition, 357
Type I (inner variations), 29
Type II (outer variations), 29

U
Upper bound of the index m by the cut number $c(\Gamma)$, 518

V
Van der Mensbrugghe, G., 484
Variational equality, 324
Variational inequality, 136
Variations $\hat{Z}(t)$ generated by inner forced Jacobi fields, 492
Varied Dirichlet integral, 494
Vector field Q, 376, 377
Vekua, I.N., 271
Vogel, T.I., 435

W
Warschawski, S.E., 102, 202, 271
Weak relative minimizer of D, 496
Weak transversality relation, 178
Weingarten map, 299, 301
Wente, H., 437, 438
Werner, H., 437
White, B., 434, 437
Widman's hole-filling method, 115
Wienholtz, D., 504
Winklmann, S., 432
Wintner, A., 117, 271
Wirtinger's inequality, 333

Y
Yau, S.T., 66, 434
Ye, R., 66, 204–206, 437

Z
Zalgaller, V.A., 434