

## Obituary

Peter Wintgen

(Nov 2, 1945 - July 17, 1981)

In the summer of 1981 we received word of the sudden death of our friend and colleague Peter Wintgen.

From 1964 to 1970 Peter Wintgen studied for a degree in mathematics at the Humboldt University of Berlin. He went on to obtain his first doctorate (Dr.rer.nat.) in 1971 on integral formulas in differential geometry and in 1977 was awarded his second doctorate (Dr.sc.nat.) after completing the thesis "On the total curvature of knotted spheres". He continued his academic work at the Humboldt University until 1979, when he moved to the Academy of Sciences of the GDR.

Even as a student he showed a remarkable aptitude for geometrical problems and this enabled him to probe deeply into complicated geometrical structures and configurations and to produce results of fundamental significance. His research, which he devoted exclusively to differential geometry, was characterised by an intuitive insight into geometrics rather than by a formal or technical approach, and the paper published in this journal is a fine example of this.

His untimely death meant the loss of an extraordinary geometrician, an ever helpful and friendly colleague and an amiable fellow who we shall never forget.

H.G. Bothe

Th. Friedrich

R. Sulanke

### Mathematical publications by Peter Wintgen

- [1] Indexmethoden in der Differentialgeometrie, Diplomarbeit, Humboldt-Universität zu Berlin, Math.-Nat. Fakultät 1969.
- [2] Integralformeln in der Differentialgeometrie, Dissertation A, Humboldt-Universität zu Berlin, Math.-Nat. Fak. 1971.

- [3] Zufällige konvexe Polyeder im N-dimensionalen euklidischen Raum, *Periodica Math. Hungarica* 2(1972), 215-221. (gemeinsam mit R. Sulanke)
- [4] Differentialgeometrie und Faserbündel; VEB Deutscher Verlag der Wissenschaften, Berlin, und Birkhäuser, Basel und Stuttgart, 1972. (gemeinsam mit R. Sulanke)
- [5] Totale Tangentialkrümmung, *Math. Nachr.* 60(1974), 161-166.
- [6] Verknottete Kurven auf Flächen *Math. Nachr.* 60(1974), 215-217.
- [7] Über k-reguläre Abbildungen von Sphären in Graßmannsche Mannigfaltigkeiten, *Math. Nachr.* 66(1975), 247-253. (gemeinsam mit Th. Friedrich)
- [8] Homotopien von Untermannigfaltigkeiten mit nicht ausgearteter zweiter Fundamentalform, *Czechoslovak Math. J.* 25(100)(1975) 424-437.
- [9] Untermannigfaltigkeiten reduktiver Räume, *Czechoslovak Math. J.* 25(100)(1975), 586-606.
- [10] Zur Integralkrümmung verknotteter Sphären, Dissertation B, Humboldt-Universität zu Berlin, Math.-Nat. Fak., 1977.
- [11] Über von höherer Ordnung reguläre Immersionen, *Math. Nachr.* 85(1978), 177-184.
- [12] On the total curvature of surfaces in  $E^4$ , *Colloquium Mathematicum* 39(1978), 284-296.
- [13] On the total curvature of knotted spheres, *Bull. Acad. Polon. Sci., Ser. Sci. math. astr. phys.* 26(1978), 249-253.
- [14] Sur l'inégalité de Chen-Willmore, *C.R. Acad. Sc. Paris* 288(1979), Ser. A, 993-995.
- [15] Normal cycle and integral curvature for polyhedra in Riemannian manifolds, *Colloquia Math. Soc. J. Bolyai* 31 Differential Geometry, Budapest 1979, North-Holland Publishing Comp. 1982.
- [16] Über die totale Absolutkrümmung verknotteter Sphären, *Beiträge zur Algebra und Geometrie* 9(1980), 131-147.
- [17] Totale Absolutkrümmung von Hyperflächen, *Beiträge zur Algebra und Geometrie* 10(1980), 87-96.
- [18] On the intersection number of submanifolds with higher dimensional intersection, *Proc. Conference (CSSR-GDR-Poland) on Diff. Geometry and its Appl.* Sept. 1980, Univerzita Karlova, Praha 1982, 73-87.
- [19] Courbure totale des surfaces ayant des singularités, *C.R. Acad. Sc. Paris* 292(1981), Sér. I, 515-517.
- [20] On the fixed point formula of Atiyah and Bott, *Colloquium Mathematicum*, to appear.
- [21] On total absolute curvature of nonclosed submanifolds, *Ann. Glob. An. Geom.* Vol. 2, 1(1984), 55-87.