

Publications by Thomas J. Head

Books:

1. *Modules: A Primer of Structure Theorems*, Brooks/Cole, 1974.
2. (with J. Golan) *Modules and the Structure of Rings*, Marcel Dekker, 1991.

Research Papers:

1. Dense submodules, *Proc. Amer. Math. Soc.*, **13** (1962), 197–199.
2. Remarks on a problem in primary abelian groups, *Bull. Soc. Math. France*, **91** (1963), 109–112.
3. An application of abelian groups to geometries with a transitive set of translations, in *Topics in Abelian Groups* (J.M. and E.A. Walker Scott, eds.), Foresman & Co., 1963, 349–355.
4. Note on the occurrence of direct factors in groups, *Proc. Amer. Math. Soc.*, **15** (1964), 193–195.
5. Note on groups and lattices, *Nieuw Archief Wiskunde*, **13** (1965), 110–112.
6. Normal subgroups and Cartesian powers of simple groups, *Nieuw Archief Wiskunde*, **13** (1965), 177–179.
7. Purity in compactly generated modular lattices, *Acta Math. Acad. Sci. Hungaricae*, **17** (1966), 55–59.
8. A direct limit representation for abelian groups with an application to tensor sequences, *Acta Math. Acad. Sci. Hungaricae*, **18** (1967), 231–234.
9. Homomorphisms of commutative semigroups as tensor maps, *J. Nat. Sci. & Math.*, **7** (1967), 39–49.
10. A tensor product of a group with a semigroup; The tensor product of semigroups with minimal ideals; Functor properties of semigroup tensor products, *J. Nat. Sci. & Math.*, **7** (1967), 155–171.
11. The varieties of commutative monoids, *Nieuw Archief Wiskunde*, **16** (1968), 203–206.
12. Tensor products and maximal subgroups of commutative semigroups, *Pub. Math. Debrecen*, **16** (1969), 145–147.
13. Groups as sequences and direct products of countable groups, *J. Nat. Sci. & Math.*, **10** (1970), 45–47.
14. Commutative semigroups having greatest regular images, *Semigroup Forum*, **2** (1971), 130–137.
15. Embedded ordinals in modular algebraic lattices, *Algebra Universalis*, **1** (1971), 200–203.
16. Preservation of coproducts by $\text{Hom}(,)$, *Rocky Mtn. J. Math.*, **2** (1972), 235–237.
17. (with N. Kuroki) Greatest regular images of tensor products of commutative semigroups, *Kodai Math. Sem. Rep.*, **26** (1975), 132–136.
18. An algebraic characterization of multiplicative semigroups of real valued functions (short note), *Semigroup Forum*, **14** (1977), 93–94.

19. (with M. Blattner) Single valued a-transducers, *J. Computer & System Sci.*, **15** (1977), 310–327.
20. (with M. Blattner) Automata that recognize intersections of free monoids, *Information & Control*, **35** (1977), 173–176.
21. Quotenet monoids and greatest commutative monoid images of several types, *Semigroup Forum*, **17** (1979), 351–363.
22. (with M. Blattner) The decidability of equivalence for deterministic finite transducers, *J. Computer & System Sci.*, **19** (1979), 45–49.
23. Codes, languages, 0L schemes, and a-transducers, *Soochow J. Math.*, **5** (1979), 45–62.
24. Codeterministic Lindenmayer schemes and systems, *J. Computer & Systems Sci.*, **19** (1979), 203–210.
25. A-transducers and the monotonicity of IL schemes, *J. Computer & Systems Sci.*, **21** (1980), 87–91.
26. (with J. Anderson) On injective and flat commutative regular semigroups (short note), *Semigroup Forum*, **21** (1980), 283–284.
27. Unique decipherability relative to a language, *Tamkang J. Math.*, **11** (1980), 59–66.
28. (with G. Thierrin) Hypercodes in deterministic and slender 0L languages, *Information & control*, **45** (1980), 251–262.
29. Fixed languages and the adult languages of 0L schemes, *Intern. J. Computer Math.*, **10** (1981), 103–107.
30. Expanded subalphabets in the theories of languages and semigroups, *Intern. J. Computer. Math.*, **12** (1982), 113–123.
31. (with J. Wilkinson) Finite D0L languages and codes (note), *Theoretical Computer Science*, **21** (1982), 357–361.
32. (with Culik II) Transductions and the parallel generation of languages, *Intern. J. Computer. Math.*, **13** (1983), 3–15.
33. (with G. Therrin, J. Wilkinson) D0L schemes and the periodicity of string embeddings (note), *Theoretical Computer Science*, **23** (1983), 83–89.
34. (with G. Therrin) Polynomially bounded D0L systems yield codes, in *Combinatorics on Words: Progress and Perspectives* (L.J. Cummings, ed.), Academic Press, 1983, 167–174.
35. Adherences of D0L languages, *Theoretical Computer Science*, **31** (1984), 139–149.
36. Adherence equivalence is decidable for D0L languages, in *Lecture Notes in Computer Science* **166** (M. Fontet, K. Melhorn, eds.), Springer-Verlag, 1984, 241–249.
37. (with J. Wilkinson) Code properties and homomorphisms of D0L systems, *Theoretical Comp. Sci.*, **35** (1985), 295–312.
38. (with J. Wilkinson) Code properties and derivatives of D0L systems, *Combinatorial Algorithms on Words* (A. Apostolico & Z. Galil, eds.), Springer-Verlag, 1985, 315–327.
39. The topological structure of adherences of regular languages *R.A.I.R.O. Theor. Informatics & Applications*, **20** (1986), 31–41.

40. The adherences of languages as topological spaces, in *Automata on Infinite Words* (M. Nivat, D. Perrin, eds.), Lecture Notes in Computer Science **192**, Springer-Verlag, 1985, 147–163.
41. (with B. Lando) Fixed and stationary omega-words and omega-languages, in *The Book of L* (G. Rozenberg, A. Salomaa, eds.), Springer-Verlag, 1986, 147–156.
42. (with B. Lando) Periodic D0L languages, *Theoretical Computer Science*, **46** (1986), 83–89.
43. (with B. Lando) Regularity of sets of initial strings of periodic D0L systems, *Theoretical Computer Science*, **48** (1986), 101–108.
44. (with B. Lando) Bounded D0L languages, *Theoretical Computer Science*, **51** (1987), 255–264.
45. The topological structure of the space of unending paths of a graph, *Congressus Numerantium*, **60** (1987), 131–140.
46. Formal language theory and DNA: an analysis of generative capacity of specific recombinant behaviors, *Bull. Math. Biology*, **49** (1987), 737–759.
47. Deciding the immutability of regular codes and languages under finite transductions, *Information Processing Letters*, **31** (1989), 239–241.
48. One-dimensional cellular automata: injectivity from unambiguity, *Complex Systems*, **3** (1989), 343–348.
49. (with B. Lando) Eignewords and periodic behaviors, in *Sequences: Combinatorics, Compression, Security and Transmission* (R. Capocelli, ed.), Springer-Verlag, 1990, 244–253.
50. The set of strings mapped into a submonoid by iterates of a morphism, *Theoretical Computer Science*, **73** (1990), 329–333.
51. (with W. Forys) The poset of retracts of a free monoid, *International J. Computer Math.*, **37** (1990), 45–48.
52. (with W. Forys) Retracts of free monoids are nowhere dense with respect to finite-group topologies and p -adic topologies (short note), *Semigroup Forum*, **42** (1991), 117–119.
53. The topologies of sofic subshifts have comutable Pierce invariants, *R.A.I.R.O. Theor. Informatics & Applications*, **25** (1991), 247–254.
54. (with J. Anderson) The lattice of semiretracts of a free monoid, *Intern. J. Computer Math.*, **41**, ???
55. Splicing schemes and DNA, in *Lindenmayer Systems: Impact on Theoretical Computer Science and Developmental Biology* (G. Rozenberg, A. Salomaa, eds.) Springer-Verlag, 1992, 371–383.
56. (with A. Weber) Deciding code related properties by means of finite transducers, *Sequences, II (Positano, 1991)*, Springer-Verlag, 1993, 260–272.
57. (with A. Weber) The finest homophonic partition and related code concepts, *Proc. Mathematical Foundations of Computer Science (Košice, 1994)*, Lecture Notes in Computer Science **841**, Springer-Verlag, 1994, 618–628.
58. (with M. Ito) Power absorbing languages and semigroups, *Proc. Words, Languages and Combinatorics, II (Kyoto, 1992)*, World Scientific, Singapore, 1994, 179–191.

59. (with N. Jonoska) Images of cellular maps on sofic shifts, *Congr. Numer.*, **101** (1994), 109–115.
60. A metatheorem for deriving fuzzy theorems from crisp versions, *Fuzzy Sets and Systems*, **73** (1995), 349–358.
61. Cylindrical and eventual languages, *Mathematical Linguistics and Related Topics* (Gh. Păun, ed.), Ed. Acad. Române, Bucharest, 1995, 179–183.
62. (with A. Weber) Deciding multiset decipherability, *IEEE Trans. Inform. Theory*, **41** (1995), 291–297.
63. (with A. Weber) The finest homophonic partition and related code concepts, *IEEE Trans. Inform. Theory*, **42** (1996), 1569–1575.
64. The finest homophonic partition and related code concepts, *IEEE Trans. Inform. Theory* **42** 5 (1996), 1569–1575.
65. (with K. Satoshi, T. Yokomori) Locality, reversibility, and beyond: learning languages from positive data, *Proc. Algorithmic Learning Theory (Otzenhausen, 1998)*, Lecture Notes in Computer Science **1501**, Springer-Verlag, 1998, 191–204.
66. Splicing representations of strictly locally testable languages, *Discrete Appl. Math.*, **87** (1998), 139–147.
67. (with G. Rozenberg, R. Bladergroen, C.K.D. Breek, P.H.M. Lomerese, H. Spaink) Computing with DNA by operating on plasmids, *BioSystems*, **57** (2000), 87–93.
68. Writing by communication by documents in communities of organisms, *Millennium III*, Issue #4 (winter 1999/2000), 33–42.
69. Circular suggestions for DNA computing, in *Pattern Formation in Biology, Vision and Dynamics* (A. Carbone, M. Gromov, P. Prusinkiewicz, eds.), World Scientific, Singapore, 2000, 325–335.
70. Relativised code properties and multi-tube DNA dictionaries, in *Finite vs. Infinite* (C. Calude, Gh. Păun, eds.), Springer-Verlag, 2000, 175–186.
71. (with M. Yamamura, S. Gal) Aqueous computing – mathematical principles of molecular memory and its biomolecular implementation, Chap. 2 in *Genetic Algorithms* (H. Kitano, ed.), **4** (2000), 49–73 (in Japanese).
72. Writing by methylation proposed for aqueous computing, Chap. 31 in *Where Mathematics, Computer Science, Linguistics, and Biology Meet* (C. Martin-Vide, V. Mitrana, eds.), Kluwer, Dordrecht, 2001, 353–360.
73. Splicing systems, aqueous computing, and beyond, in *Unconventional Models of Computation UMC'2K* (I. Antoniou, C.S. Calude, M.J. Dineen, eds.), Springer-Verlag, 2001, 68–84.
74. Biomolecular realizations of a parallel architecture for solving combinatorial problems, *New Generation Computing*, **19** (2001), 301–312.
75. (with S. Gal) Aqueous computing: Writing into fluid memory, *Bull. Europ. Assoc. Theor. Comput. Sci.*, **75** (2001), 190–198.
76. Visualizing languages using primitive powers, in *Words, Semigroups, Transducers* (M. Ito, Gh. Păun, S. Yu, eds.), World Scientific, Singapore, 2001, 169–180.
77. Finitely generated languages and positive data, *Romanian J. Inform. Sci. & Tech.*, **5** (2002), 127–136.

78. Aqueous simulations of membrane computations, *Romanian J. Inform. Sci. & Tech.*, **5**, 4 (2002), 355–364.
79. An aqueous algorithm for finding the bijections in a binary relation, in *Formal and Natural Computing: Essays Dedicated to Grzegorz Rozenberg* (W. Brauer, H. Ehrig, J. Karhumaki, A. Salomaa, eds.), Lecture Notes in Computer Science **2300**, Springer-Verlag, 2002, 354–360.
80. (with X. Chen, M.J. Nichols, M. Yamamura, S. Gal) Aqueous solutions of algorithmic problems: emphasizing knights on a 3X3, *DNA Computing – 7th International Workshop on DNA-Based Computers June 2001* (N. Jonoska, N.C.Seeman, eds.), Lecture Notes in Computer Science **2340**, Springer-Verlag, 2002, 191–202.
81. (with X. Chen, M. Yamamura, S. Gal) Aqueous computing: a survey with an invitation to participate, *J. Computer Sci. Tech.*, **17** (2002), 672–681.
82. (with D. Pixton, E. Goode) Splicing systems: regularity and below, *DNA Computing – 8th International Workshop on DNA-Based Computers* (M. Hagiya, A. Ohuchi, eds.), Lecture Notes in Computer Science **2568**, Springer-Verlag, 2003, 262–268.

Author Index

- Alhazov, Artiom, 1
Arita, Masanori, 23
Arulanandham, Joshua J., 36
- Balan, M. Sakthi, 353
Bernardini, Francesco, 49
Bobba, Kiranchand V., 152
- Calude, Cristian S., 36
Carbone, Alessandra, 61
Ceterchi, Rodica, 84
Csuhaj-Varjú, Erzsébet, 106
Culik II, Karel, 119
- Das, Bireswar, 361
Dinneen, Michael J., 36
- Ferretti, Claudio, 132
Freund, Franziska, 139
Freund, Rudolf, 139
- Garzon, Max H., 152
Gehani, Ashish, 167
Gheorghe, Marian, 49
Goode, Elizabeth, 189
- Harju, Tero, 202
Holcombe, Mike, 49
Hyde, Bryan P., 152
- Ito, Masami, 213
- Jonoska, Nataša, 219, 241
- Karhumäki, Juhani, 119
Kari, Lila, 254
Kobayashi, Satoshi, 266
Krithivasan, Kamala, 353
Kudlek, Manfred, 278
- LaBean, Thomas, 167
Ledesma, Lucas, 289
Leupold, Peter, 297
Liao, Shiping, 219
- Mahalingam, Kalpana, 241
Manca, Vincenzo, 309
Marcus, Solomon, 318
Martín-Vide, Carlos, 1, 84, 254
Mauri, Giancarlo, 132
Mitrana, Victor, 297
- Oswald, Marion, 139
- Pan, Linqiang, 1
Păun, Andrei, 254
Păun, Gheorghe, 322
Pazos, Juan, 289
Pérez-Jiménez, Mario J., 338
Petre, Ion, 202
Pixton, Dennis, 189
- Reif, John, 167
Rodríguez-Patón, Alfonso, 289
Romero-Jiménez, Alvaro, 338
Rozenberg, Grzegorz, 202
- Sakakibara, Yasubumi, 266
Salmela, Petri, 119
Salomaa, Arto, 106
Sancho-Caparrini, Fernando, 338
Seeman, Nadrian C., 61, 219
Sempere, José M., 297
Siromoney, Rani, 361
Subramanian, K.G., 84
Sugiura, Ryo, 213
- Verlan, Sergey, 367
- Yokomori, Takashi, 266