

## List of publications by Jan A. Bergstra (September 15, 2005)

List of publications arranged by subject and per subject by date. Survey papers have been classified under miscellaneous. Submitted reports are listed in their subject category unless publication is not intended at this stage. Such reports and documents end up in the final section.

### Recursion theory

- [1] J.A. Bergstra. *Computability and continuity in finite types* Ph.D. Thesis Utrecht (Januari 1976).
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- [3] J.A. Bergstra and S.S. Wainer. The "real ordinal" of the 1-section of a continuous functional. *Abstract in J. Symbolic Logic*, 42(3), 1977.
- [4] J.A. Bergstra. The continuous functionals and  ${}^2E$ . In J.E. Fenstad, R.O. Gandy and G.E. Sacks eds. *Generalized Recursion Theory II*. North Holland (1978), p. 39-53.
- [5] J.A. Bergstra. Datatypen bezien vanuit de recursietheorie. In J. van Vliet, ed. *MC-syllabus 37, Colloquium capita datastructuren* (1978), p. 157-170.
- [6] J.A. Bergstra. Degrees of partial functions. *Notre Dame J. of Formal Logic, Vol. 19*, 1 (1978), p.152-154.
- [7] J.A. Bergstra. Effective transformations on probabilistic data. *Zeitschrift fuer Mathematik und Grundlagen der Mathematik*, Bd. 25 (1979), p. 219-226.
- [8] J.A. Bergstra. Recursion theory on processes. *International J. of Computer Mathematics, section A, vol. 7*, 2 (1979), p.119-128.
- [9] J.A. Bergstra. Dynamic recursion theory. Abstract in *J. Symbolic Logic, vol. 45*, 2 (1980), p. 387.

### Lambda calculus and rewrite systems

- [1] H.P. Barendregt, J.A. Bergstra, J.W. Klop and H. Volken. Representability in lambda algebras. *Indagationes Mathematicae, vol. 79* (5) (1976), p.377-387.
- [2] J.A. Bergstra and J.W. Klop. Church-Rosser strategies in the lambda calculus. *Theoretical Computer Science 9* (1979), p. 27-38.
- [3] J.A. Bergstra and J.W. Klop. Invertible terms in the lambda calculus. *Theoretical Computer Science 11* (1980), p.19-38.
- [4] J.A. Bergstra and J.W. Klop. Strong normalisation and perpetual reduction in the lambda calculus. *Elektronische Informationsverarbeitung und Kybernetik 18* 7/8 (1982), p. 403-417.
- [5] J.A. Bergstra and J.W. Klop. Conditional rewrite rules: confluence and termination. *J. of Comp. & Syst. Sci, Vol 32* 3 (1986), p. 323-362.
- [6] J.C.M. Baeten, J.A. Bergstra and J.W. Klop. Term rewriting systems with priorities. In P. Lescanne, ed. *Proc. Conf. on Rewriting Techniques and Applications*. Bordeaux 1987, Springer Lecture Notes in Computer Science 256 (1987), p. 83-94.
- [7] J.C.M. Baeten, J.A. Bergstra, J.W. Klop and W.P. Weijland. Term rewriting with rule priorities. *Theoretical Computer Science 67* (1989), p. 283-301.
- [8] J.A. Bergstra and J.W. Klop. *Semi-complete termherschrijfsystemen*. Kluwer Programmatuurkunde, Deventer (1987), 123 blz. (In Dutch)
- [9] J.A. Bergstra, J.W. Klop and A. Middeldorp. *Termherschrijfsystemen*. Kluwer Programmatuurkunde, Deventer, (1989), 170 blz. (In Dutch)

## Program verification

- [1] K.R. Apt, J.A. Bergstra and L.G.L.T. Meertens. Recursive assertions are not enough - or are they? *Theoretical Computer Science* 8 (1979), p.73-88.
- [2] J.A. Bergstra and J.V. Tucker. Algebraically specified programming systems and Hoare's logic. In S.Even and O.Kariv, eds. *Proceedings of ICALP'81. Springer Lecture Notes in Computer Science* 115 (1981), p.348-362.
- [3] J.A. Bergstra, J. Tiuryn and J.V. Tucker. Floyd's principle, correctness theories and program equivalence. *Theoretical Computer Science* 17 (1981), p. 112-149.
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- [5] J.A. Bergstra and J. Terlouw. A propositional version of Hoare's logic. *Bulletin of the EATCS*, no 14 (1981).
- [6] J.A. Bergstra. A propositional version of Hoare's logic with modal operators. *Bulletin of the EATCS*, no 16 (1982).
- [7] J.A. Bergstra and J.V. Tucker. The field of algebraic numbers fails to possess even a nice sound, if relatively incomplete, Hoare-like logic for its while programs. *Theoretical Computer Science* 17 (1982), p.303-315
- [8] J.A. Bergstra and J.V. Tucker. Two theorems on the completeness of Hoare's logic. *Information Processing Letters* 15 (1982), p.143-149.
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- [18] J.A. Bergstra and J.W. Klop. Proving program inclusion using Hoare's logic. *Theoretical Computer Science* 30 (1984), p.1-48.
- [19] J.A. Bergstra and J.V. Tucker. The axiomatic semantics of while programs based on Hoare's logic. *Acta Informatica* 21 (1984), p. 293-320.

## Abstract data types

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- [2] J.A. Bergstra and J.V. Tucker. On the adequacy of finite equational methods for data type specification. *ACM Sigplan Notices* 14 11 (1979), p. 13-18.
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- [9] J.A. Bergstra and J.-J. Ch. Meyer. Small specifications for large finite data structures. *International J. of Computer Mathematics*, Vol. 9 4 (1981), p. 305-320.
- [10] J.A. Bergstra and J.-J. Ch. Meyer. Equational specifications of finite minimal unoids, using unary hidden functions only. *Fundamenta Informaticae*, Vol. 5 2 (1982), p. 143-170.
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## Process algebra

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## Process algebra with silent steps

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## Process algebra with time and space

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## Logics and languages for processes and data

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