

JOHN V TUCKER
CLASSIFIED LIST OF PUBLICATIONS

March 2013

My research publications can be classified under the following headings:

Books

Surveys

Computable algebras, rings and fields

Abstract computability theory: general theory

Abstract computability theory: topological data types

Domain representability and concrete computability of topological data types

Physical measurement and computability

Algebraic specification of data types: computable implementations

Algebraic specification of data types: examples

Logical foundations of program verification

Process algebra

Synchronous concurrent algorithms and hardware

Synchronous concurrent algorithms and dynamical systems

Volume graphics

History of science and technology

Social studies of the internet

Lecture notes

General articles

Within the sections the publications are listed in the order of their publication date; often this does not represent the order of their composition. Most, but not all, publications are included. There are 5 books, 6 major survey articles, and 100+ research papers.

Books

J V Tucker and J I Zucker, **Program correctness over abstract data types with error-state semantics**, North-Holland, Amsterdam, 1988, pp. vii+212.

K McEvoy and J V Tucker, **Theoretical foundations of VLSI design**, edited work, Cambridge Tracts in Theoretical Computer Science, Cambridge University Press, 1990, pp. xi+438.

K Meinke and J V Tucker, **Many sorted logic and its applications**, edited work, J Wiley & Sons, 1993, pp. vii+391.

B Möller and J V Tucker, **Prospects for hardware foundations**, edited work, Springer Lecture Notes in Computer Science, Vol 1546, Springer Verlag, 1998, pp. x+468.

A Beckmann, U Berger, B Löwe, and J V Tucker (eds.), **Logical approaches to computational barriers**, Springer Lecture Notes in Computer Science, Vol 3988, Springer Verlag, 2006, pp. xv+608.

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V Stoltenberg-Hansen and J V Tucker, *Computable and continuous homomorphisms on metric partial algebras*, **Bulletin of Symbolic Logic**, 9 (2003), 299 - 334.

J E Blanck, V Stoltenberg-Hansen and J V Tucker, *Stability of representations of effective partial algebras*, **Mathematical Logic Quarterly**, 57 (2011) 217–231. DOI 10.1002/malq.200910133

See also **Surveys** and **Domain Representability**.

Abstract computability theory: general theory

J V Tucker, *Computing in algebraic systems*, in F R Drake and S S Wainer (eds.) **Recursion Theory, its Generalisations and Applications**, London Mathematical Society Lecture Note Series 45, Cambridge University Press, Cambridge, 1980, pp. 215-235.

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J Moldestad, V Stoltenberg-Hansen and J V Tucker, *Finite algorithmic procedures and computation theories*, **Mathematica Scandinavica**, 46 (1980) 77-94.

P R J Asveld and J V Tucker, *Complexity theory and the operational structure of algebraic programming systems*, **Acta Informatica**, 17 (1982) 451-476.

J V Tucker, *Applications of computability theory over abstract data types*, in J W Klop (ed.) **J W de Bakker: 25 Jaar Semantiek. Liber Amicorum**, CWI Amsterdam, 1989, 421-432.

J V Tucker and J I Zucker, *Horn programs and semicomputable relations on abstract structures*. In G Ausiello, M Dezani-Ciancaglini, S Ronchi Della Rocca (eds.) **Automata, Languages and Programming, Sixteenth Colloquium, Stresa, 1989**, Springer Lecture Notes in Computer Science 372, Springer-Verlag, Berlin, 1989, pp.745-760.

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See also **Books**, **Surveys** and **Domain Representability**.

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E J Beggs, J F Costa, and J V Tucker, *Computational models of measurement and Hempel's axiomatization*, A Carsetti (ed.), **Causality, meaningful complexity and embodied cognition**, Theory and Decision Library, A 46, Springer-Verlag, 2010, 155-183. DOI 10.1007/978-90-481-3529_9.

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See also **Books, Surveys** and **Lecture Notes**.

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