

## Publications by Gunther Schmidt

*At the end of this list, a hint is given as to citation frequency.*

### 2019

— Rückblick auf die Anfänge der Münchner Informatik — Sammlung von Erinnerungen, Belegen und Veröffentlichungen von früh und lange Beteiligten, 2019. 200 Seiten, in Vorbereitung.

— with RUDOLF BERGHAMMER AND MICHAEL WINTER. Cryptomorphic topological structures: A computational, relation-algebraic approach. *Journal of Logical and Algebraic Methods in Programming* 102 (2019), 17–45. <https://doi.org/10.1016/j.jlamp.2018.09.004>.

### 2018

— with MICHAEL WINTER. Relational Topology, volume 2208 of *Lecture Notes in Mathematics*. Springer-Verlag, 2018.

### 2017

— Partiality III: Observability and dispersion, 2017. In preparation.

### 2016

— with RUDOLF BERGHAMMER AND MICHAEL WINTER. A Relation-Algebraic Approach to Dimensions in L-Fuzzy Topological Spaces. Submitted to *Journal on Logic and Algebraic Methods in Programming*.

### 2015

— Arranging binary relations nicely — A Guide. Technical Report 2015-01, Fakultät für Informatik, Universität der Bundeswehr München, December 2015.

— A relational view on stochastics. The Festschrift on the occasion of the 60th birthday of José N. Oliveira, 2015.

### 2014

— with MICHAEL WINTER. Relational Topology. Technical Report 2014-03, Fakultät für Informatik, Universität der Bundeswehr München, 76 pages, Nov. 2014.

— with LOTHAR SCHMITZ. Prof. Friedrich L. Bauer und seine Verbindungen zur Fakultät für Informatik — Der Vater der deutschen Informatik. *Hochschulkurier der Universität der Bundeswehr*, 50, 2014. 10–11.

— with MICHAEL WINTER. Relational Mathematics Continued. Tech. Rep. 2014-01, Fakultät für Informatik, Universität der Bundeswehr München, 45 pages, Apr. 2014. <http://arxiv.org/abs/1403.6957>.

— A point-free relation-algebraic approach to general topology. In Höfner et al. [8], pages 226–241.

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— A surprising link between functional programming and topology, 2013. Extended Abstract for 17. Kolloquium Programmiersprachen und Grundlagen der Programmierung, KPS'13, Martin-Luther-Universität Halle-Wittenberg.

## 2012

— Graphs and Combinatorics, Considered Relationally, 2012. CTW 2012, 11th Cologne-Twente Workshop on Graphs and Combinatorial Optimization (Abstract).

— Relational Concepts in Social Choice. In Griffin and Kahl [7], pp. 278–293.

— Partiality II: Constructed relation algebras. *Journal of Logic and Algebraic Programming* 81 (2012), 660–679. <http://dx.doi.org/10.1016/j.jlap.2012.05.005>.

## 2011

— TITUREL: Sprache für die Relationale Mathematik. Tech. Rep. 132, Arbeitsberichte des Instituts für Wirtschaftsinformatik, Universität Münster, 2011. 11 pages, <http://mucob.dyndns.org:30531/~gs/Papers/Raesfeld2011ExtendedAbstract.pdf>.

— with RUDOLF BERGHAMMER Contact, closure, topology, and the linking of row and column types of relations. *Journal of Logic and Algebraic Programming* 80 (2011), 339–361.

— Constructions around partialities. In *RAMICS 2011*, H. de Swart, Ed., no. 6663 in Lect. Notes in Comput. Sci., Springer-Verlag, p. 314–330.

## 2010

— *Relational Mathematics*. Encyclopedia of Mathematics and its Applications, vol. 132. Cambridge University Press, 2011. ISBN 978-0-521-76268-7, 584 pages.

## 2009

— with RUDOLF BERGHAMMER. Contact Relations with Applications. In Berghammer et al. [1], pp. 306–321.

## 2008

— with RUDOLF BERGHAMMER Relational Measures and Integration in Preference Modeling. *Journal of Logic and Algebraic Programming* 76/1 (2007), 112–129. Special Issue edited by Georg Struth; DOI: 10.1016/j.jlap.2007.10.001.

— Rectangles, Fringes, and Inverses. In Berghammer et al. [2], pp. 352–366

— Relations Making Their Way from Logics to Mathematics and Applied Sciences. In Berghammer et al. [2], pp. 3 Abstract of an Invited Paper.

## 2007

FRIEDRICH L. BAUER, ET AL., Ed. *among these many editors also* GUNTHER SCHMIDT, *Festschrift 40 Jahre Informatik in München 1967–2007*. TUM, 2007; 382 pages.

RUDOLF BERGHAMMER AND GUNTHER SCHMIDT Algebraic Visualization of Relations Using RELVIEW. In *Computer Algebra in Scientific Computing, 10th International Workshop, CASC 2007, Bonn, Germany, September 16–20, 2007, Proceedings* (2007), V. G. Ganzha, E. W. Mayr, and E. V. Vorozhtsov, Eds., vol. 4770 of *Lect. Notes in Comput. Sci.*, Springer-Verlag, pp. 58–72.

## 2006

HARRIE DE SWART, EWA ORŁOWSKA, GUNTHER SCHMIDT, AND MARC ROUBENS, Eds. *Theory and Applications of Relational Structures as Knowledge Instruments II. COST Action 274: TARSKI*. (2006), no. 4342 in *Lect. Notes in Comput. Sci.*, Springer-Verlag. ISBN-10: 3-540-69223-1, ISBN-13: 978-3-540-69223-2.

— Partiality I: Embedding Relation Algebras. *Journal of Logic and Algebraic Programming* 66, 2 (2006), 212–238. Special Issue edited by Bernhard Möller; DOI: 10.1016/j.jlap.2005.04.002.

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## 2005

— Relations and Partialities. In Düntsch and Winter [6], pp. 217–226. <http://mucob.dyndns.org:30531/~gs/Papers/Schmidt-RelMiCS-1.pdf>

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## 2004

— A Proposal for a Multilevel Relational Reference Language. *Electronic J. on Relational Methods in Comput. Sci.* 1 (2004), 314–338. <http://www.cosc.brocku.ca/Faculty/Winter/JoRMiCS/Vol11/PDF/v1n13.pdf>

— Preface for the 1st Volume of the Electronic J. on Relational Methods in Comput. Sci. *Electronic J. on Relational Methods in Comput. Sci.* 1 (2004), 1–2.

— COST 274: TARSKI — Books, Theses, and Publications, 2004. Separate booklet, 63 pages. <http://mucob.dyndns.org:30531/~gs/Papers/costbooks20040929.pdf>

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## 2003

— Relational Data Analysis. In *RelMiCS '7 — Relational and Kleene-Algebraic Methods in Computer Science. Proc. of the Internat. Workshop RelMiCS '7 and 2nd Internat. Workshop on Applications of Kleene Algebra, in combination with a workshop of the COST Action 274: TARSKI. Revised Selected Papers* (2004), R. Berghammer, B. Möller, and G. Struth, Eds., no. 3051 in Lect. Notes in Comput. Sci., Springer-Verlag, pp. 227–237. ISBN 3-540-22145-X, 279 pages.

HARRIE DE SWART, EWA ORŁOWSKA, GUNTHER SCHMIDT, AND MARC ROUBENS, Eds. *Relational Methods in Computer Science* (2003), no. 2929 in Lect. Notes in Comput. Sci., Springer-Verlag. COST Action 274: TARSKI. ISBN 3-540-20780-5.

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RUDOLF BERGHAMMER, GUNTHER SCHMIDT, AND MICHAEL WINTER RELVIEW and RATH — Two Systems for Dealing with Relations. In de Swart et al. [5], pp. 1–16. COST Action 274: TARSKI. ISBN 3-540-20780-5.

— with GÜNTHER GEDIGA Progress Report 2003 of COST Action 274: Theory and Applications of Relational Structures as Knowledge Instruments. In *Annual Reports 2003*. COST European Co-operation in Scientific and Technical Research; TIST — Telecommunications, Information Science and Technology, 2003. 38 pages.

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— A relational investigation on the laws of parallel processing, 2002. unpublished manuscript of 52 pages.

— Decomposing Relations — Data Analysis Techniques for Boolean Matrices. Technical Report 2002-09, Fakultät für Informatik, Universität der Bundeswehr München, 2002. <http://mucob.dyndns.org:30531/~gs/Papers/DecompoHomePage.html>, 79 pages.

— with GÜNTHER GEDIGA Annual Progress Report 2002 of COST Action 274: Theory and Applications of Relational Structures as Knowledge Instruments. In *Annual Reports*

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WOLFRAM KAHL AND GUNTHER SCHMIDT. Exploring (Finite) Relation Algebras With Tools Written in Haskell. Technical Report 2000/02, Fakultät für Informatik, Universität der Bundeswehr München, 158 p., October 2000. <http://mucob.dyndns.org:30531/~gs/Papers/RelAlgTools.pdf>.

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IVO DÜNTSCH, GUNTHER SCHMIDT, AND MICHAEL WINTER. A Necessary Relation Algebra for Mereotopology. *Studia Logica*, 69 (3):381–409, 2001.

ALI JAOUA AND GUNTHER SCHMIDT, editors. *Relational Methods in Computer Science*, volume 119, Nr. 3/4 of *Information Sciences — An International Journal*. Elsevier, 1999. Special Issue on the 3<sup>rd</sup> Int. Seminar on Relational Methods in Computer Science, Jan 6–10, 1997 in Hammamet, Tunisia.

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## 1997

CHRIS BRINK, WOLFRAM KAHL, AND GUNTHER SCHMIDT (eds.). *Relational Methods in Computer Science*. Advances in Computing Science. Springer-Verlag, Wien–New York, 1997. ISBN 3-211-82971-7.

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RUDOLF BERGHAMMER, ARMANDO MARTIN HAEBERER, GUNTHER SCHMIDT, AND PAULO A. S. VELOSO. A new class of partially evaluable fork algebras: Axiomatization and models. unpublished, 1995.

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RUDOLF BERGHAMMER, THOMAS GRITZNER, AND GUNTHER SCHMIDT. Prototyping relational specifications using higher-order objects. In Jan Heering, Kurt Meinke, Bernhard Möller, and Tobias Nipkow, editors, *Higher-Order Algebra, Logic, and Term Rewriting*, volume 816 of *Lect. Notes in Comput. Sci.*, pages 56–75. Springer-Verlag, 1994. 1<sup>st</sup> Int'l Workshop, HOA '93 in Amsterdam.

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ERNST MAYR, GUNTHER SCHMIDT, AND GOTTFRIED TINHOFER, editors. *Graph-Theoretic Concepts in Computer Science*, volume 903 of *Lect. Notes in Comput. Sci.* Springer-Verlag, 1994. Proc. 20<sup>th</sup> Int'l Workshop WG '94, Herrsching, Jun 17–19, ISBN 3-540-59071-4.

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RUDOLF BERGHAMMER AND GUNTHER SCHMIDT. RELVIEW — A computer system for the manipulation of relations (Notes to a system demonstration). In Nivat et al. [11], pages 403–404.

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— with RUDOLF BERGHAMMER, editors. *Graph-Theoretic Concepts in Computer Science*, volume 570 of *Lect. Notes in Comput. Sci.* Springer-Verlag, 1991. Proc. 17<sup>th</sup> Int'l Workshop WG '91, Richterheim Fischbachau, Jun 17–19, 1991, ISBN 3-540-55121-2, ISBN 0-387-55121-2. 253 pages

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