

# Publication list 1984 - present date

Patrik Eklund

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## Abstract

This is something like an an “extended bibliography”, including groupings of papers under certain themes. This grouping reflects the scientific approach of the author, and, in fact, also shows that the fundamental scientific approach has not changed all that much over decades. The reference shows papers in chronological order, and hyperlinks are included for many papers, in particular the later ones.

## References

- [1] P. Eklund, *A class of completely regular spaces*, Internat. J. Math. & Math. Sci. **7** (1984), 197-200.  
<http://downloads.hindawi.com/journals/ijmms/1984/582936.pdf>
- [2] P. Eklund, *Category theoretic properties of fuzzy topological spaces*, Fuzzy Sets and Systems **13** (1984), 303-310.
- [3] P. Eklund, *Factorization of morphisms in fuzzy topological spaces*.  
The paper was submitted to J. Math. Anal. Appl. in 1983, and was accepted shortly after submission. The paper became part of [7], but after the publication of [7], the paper never appeared in print in J. Math. Anal. Appl., due to interruption in communication with the editor, R. E. Bellman, and the editorial office of the journal. Bellman died in March, 1984, and this is the probable cause for the interruption in the communication with the editorial office.

- [4] R. J. R. Back, P. Eklund, R. Kurki-Suonio, *A fair and efficient implementation of CSP with output guards*, Rapporten från Åbo Akademi, inf.beh. & matem., Ser. A, nr 38, 1984.  
<http://tuus.fi/publications/attachment.php?fname=AFairAndEfficientImplement>
- [5] P. Eklund, *Synchronizing Multiple Processes in Common Handshakes*, Rapporten från Åbo Akademi, inf.beh. & matem., Ser. A, nr 39, 1984.
- [6] P. Eklund, W. Gähler, *Fuzzy set categories for fuzzy topology*, manuscript, 1985.  
 The paper remained unpublished, until eventually included as part of [7].
- [7] P. Eklund, *Categorical Fuzzy Topology*, Ph.D. thesis, Åbo Akademi University, 1986.  
 The thesis consists of papers [8, 2, 5, 9, 6]
- [8] P. Eklund, *Categorical Fuzzy Topology*, Acta Acad. Aboensis, Ser. B **46** (1) (1986), 1-13.  
 The paper is a survey paper of [2, 5, 9, 6], and serves as a thesis introduction paper in [7].
- [9] P. Eklund, *A Comparison of Lattice-theoretic Approaches to Fuzzy Topology*, Fuzzy Sets and Systems **19** (1986), 81–87.
- [10] P. Eklund, *Modelling Configuration Expert Systems*, Proc. of the first Scandinavian Conference on Artificial Intelligence (Ed. T. Danielsen), Tromsø, March 1988, International Organisations Services, Amsterdam, 1988, 25-33.
- [11] P. Eklund, W. Gähler, *Basic Notions for Fuzzy Topology, I*, Fuzzy Sets and Systems **26** (1988), 333–356.  
<https://www.sciencedirect.com/science/article/pii/0165011488901273>

- [12] P. Eklund, W. Gähler, *Basic Notions for Fuzzy Topology, II*, Fuzzy Sets and Systems **27** (1988), 171–195.  
<http://www.sciencedirect.com/science/article/pii/0165011488901479>
- [13] E. R. Caianiello, P. E. Eklund, A. G. S. Ventre, *Implementations of the C-calculus*, Connection Science, **1** (1989), 41-51.  
<http://www.tandfonline.com/doi/abs/10.1080/09540098908915628>
- [14] P. Eklund, T.-E. Malén, *Block Placement in Switching Networks*, CONPAR 88, (ed. C.R. Jesshope, K.D. Reinartz), Cambridge University Press, 1989, 299-305.
- [15] E. R. Caianiello, P. E. Eklund, M. Squillante, A. G. S. Ventre, *Formalism and Implementations of C-calculus*, COMPUTATIONAL INTELLIGENCE, I – The International Conference on Computational Intelligence 88, Milan, Italy, September 26-30, 1988, A. Martelli, G. Valle (Editors), Elsevier Science Publishers B.V. (North-Holland), 1989, 15-26.
- [16] P. Eklund, W. Gähler, *General Structures and Fuzzy Filters*, Proc. Third Congress of the International Fuzzy Systems Association (IFSA), invited talk, Seattle, August 6-11, 1989, 266-268.
- [17] D. Ehrenberg, P. Eklund, M. Fedrizzi, A. G. S. Ventre, *Consensus in distributed soft environments*, Rapporteur från Åbo Akademi, inf.beh. & matem., Ser. A, nr 88, 1989.  
<https://people.cs.umu.se/~peklund/publications/ConsensusInDistributedSoftEn>
- [18] P. Eklund, W. Gähler, *Generalized Cauchy spaces*, Math. Nachr. **147** (1990), 201-215.  
<http://onlinelibrary.wiley.com/doi/10.1002/mana.19901470123/full>
- [19] P. Eklund, M. Kaufmann, *Hierarchical wiring in multigrids*, CONPAR90 – VAPP IV, Joint International Conference on Vector and Parallel Pro-

- cessing (Ed. H. Burkhart), Lecture Notes in Computer Science 457, Springer, 1990, 423-434.
- [20] D. Ehrenberg, P. Eklund, M. Fedrizzi, A. G. S. Ventre, *Enhancing consensus in distributed environments*, Third Italian Workshop on Parallel Architectures and Neural Networks (ed. E. R. Caianiello), World Scientific Publishing Co., 1990, 403-406.
- [21] P. Eklund, J. Forsström, *Diagnosis of Nephropathia Epidemica by Adaptation through Lukasiewicz Inference*, COMPUTATIONAL INTELLIGENCE, III – Proceedings of the The International Symposium 'Computational Intelligence 90', Milan, Italy, 24-28 September, 1990, N. Cercone & F. Gardin (Editors), G. Valle (Co-Editor), Elsevier Science Publishers B.V. (North-Holland), 1991, 237-246.
- [22] J. Forsström, P. Eklund, H. Virtanen, J. Waxlax, J. Lähdevirta, *Diagaid: A Connectionists Approach to Determine the Information Value of Clinical Data*, Artificial Intelligence in Medicine, **3** (1991), 193-201.  
<https://www.sciencedirect.com/science/article/pii/093336579190011Y>
- [23] P. Eklund, F. Klawonn, *A Formal Framework for Fuzzy Logic Based Diagnosis*, Proc. 4th IFSA Congress (Mathematics Chapter), Brussels, July 1991, 58-61.
- [24] P. Eklund, P. Gustafsson, P. Lindholm, Tony Riissanen, *An Architecture for Topological Concensus Reaching*, Proc. AIRO91, Riva del Garda, September 18-20, 1991, 110-113.
- [25] P. Eklund, H. Virtanen, T. Riissanen, *On the Fuzzy Logic Nature of Neural Nets*, Proc. Neuro-Nimes '91, Nimes, November 4-8, 1991, 293-300.
- [26] P. Eklund, W. Gähler, *Fuzzy Filter Functors and Convergence*, Applications of category theory to fuzzy subsets (ed. S. E. Rodabaugh, E.

- P. Klement, U. Höhle), Theory and Decision Library B, Kluwer, 1992, 109-136.  
[https://link.springer.com/chapter/10.1007%2F978-94-011-2616-8\\_5](https://link.springer.com/chapter/10.1007%2F978-94-011-2616-8_5)
- [27] P. Eklund, F. Klawonn, *Neural Fuzzy Logic Programming*, IEEE Trans. Neural Networks, **3** No 5 (1992), 815-818.  
<https://ieeexplore.ieee.org/document/159071/>
- [28] C. Carlsson, D. Ehrenberg, P. Eklund, M. Fedrizzi, P. Gustafsson, G. Merkuryeva, T. Riissanen, A. G. S. Ventre, *Consensus in Distributed Soft Environments*, European J. Oper. Res., **61** (1992), 165-185.  
<https://www.sciencedirect.com/science/article/abs/pii/037722179290278H>
- [29] P. Eklund, W. Gähler, *Contributions to Fuzzy Convergence*, Recent Developments of General Topology and its Applications, International Conference in Memory of Felix Hausdorff (1868-1942), ed. W. Gähler, H. Herrlich, G. Preuß, Akademie Verlag, 1992, 118-123.  
<http://people.cs.umu.se/peklund/publications/Hausdorff92.pdf>
- [30] P. Eklund, F. Klawonn, D. Nauck, *Distributing Errors in Neural Control*, Proc. IIZUKA-92, Iizuka, Japan, 1992, 1139-1142.  
<http://people.cs.umu.se/peklund/publications/DistributingErrors.pdf>
- [31] P. Eklund (ed.), Proceedings MEPP92, , Mariehamn, Åland, June 15-19, 1992, Rapporten från Åbo Akademi, inf.beh. & matem., Ser. B, nr 14, 1992.
- [32] P. Eklund, M. Fedrizzi, D. Kenis, D. Malinverni Silvestri, L. Mich, S. Olli, A. Ventre, P. Vuorinen, *The Questionnaire Game*, Proceedings of the Workshop on Current Issues in Fuzzy Technologies, CIFT 92, May 1992, Trento, Italy, 35-44.  
<https://people.cs.umu.se/~peklund/publications/TheQuestionnaireGame.pdf>

- [33] P. Eklund, J. Mattila (eds.), Proceedings Fuzziness in Finland, M/S Kalypso, January 15, 1993, Rapporten från Åbo Akademi, inf.beh. & matem., Ser. B., No 15, 1993.
- [34] P. Eklund, W. Gähler, *Completions and Compactifications by Means of Monads*, in: Fuzzy Logic, State of the Art, R. Lowen and M. Roubens (eds.), Kluwer, 1993, 39-56.  
[https://link.springer.com/chapter/10.1007/978-94-011-2014-2\\_4](https://link.springer.com/chapter/10.1007/978-94-011-2014-2_4)
- [35] P. Isomursu, V. Niskanen, C. Carlsson, P. Eklund, *A Report on Fuzzy Logic and its Possibilities in Finnish Industry* (in Finnish), Technical Development Centre of Finland TEKES Publications 34/93, Helsinki, 1993.
- [36] P. Eklund, F. Klawonn (eds.), *MEPP '93*, Int. Seminar on Diagnostics and Control through Neural Interpretations of Fuzzy Sets, Mariehamn, Åland (Finland), June 14-18, 1993, Selected papers appear in a Special Issue on Diagnostics and Control through Neural Interpretations of Fuzzy Sets, Fuzzy Sets and Systems Vol. 66, no 3, 1994.
- [37] M. Hurme, V. A. Niskanen, P. Eklund, J. K. Mattila (eds.), Proceedings Fuzziness in Finland '94, M/S Silja Symphony, January 11-12, 1994, Plant Design Report Series, Helsinki University of Technology, Report No. 21, 1994.
- [38] P. Eklund, *Network Size Versus Preprocessing*, in: Fuzzy Sets, Neural Networks and Soft Computing, ed. R. Yager, L. Zadeh, Van Nostrand Reinhold, New York, 1994, 250-264.  
<http://people.cs.umu.se/peklund/publications/NetworkSizeVersusPreprocessing>
- [39] P. Eklund, J. Forsström, A. Holm, M. Nyström, G. Selén, *Rule Generation as an Alternative to Knowledge Acquisition*, Fuzzy Sets and Systems **66** (1994), 195-205.  
<https://www.sciencedirect.com/science/article/pii/0165011494903107>

- [40] P. Eklund, *Fuzzy Logic in Northern Europe: Industrial Applications and Software Developments*, Proc. FUZZ-IEEE '94, Orlando, June 26 - July 2, 1994, 712-715.
- [41] M. Nyström, G. Selén, P. Eklund, *DiagaiD: A Neuro-Fuzzy System for Developing Medical Decision Support* (abstract), XXIV Nordic Congress of Clinical Chemistry (abstract), Stockholm, August 9-12, 1994. Scand J Clin Lab Invest, **54** Suppl. 218 (1994), 9-10.
- [42] P. Eklund, M. Fogström, S. Olli, *Fuzzy Logic in Automation Software*, Proc. Multiple Paradigms for Artificial Intelligence, Turku (Åbo), Finland, August 29-31, 1994, 184-187.
- [43] J. Forsström, P. Eklund, *Using neuro fuzzy tool to support medical decision making: A case study on the diagnosis of myocardial infarction*, Proc. Multiple Paradigms for Artificial Intelligence, Turku (Åbo), Finland, August 29-31, 1994, 75-80.
- [44] Anders Holm, Johan Karlsson, Patrik Eklund, *Information Technology for Project Management: Progress Management and Communication Support*, Proc. Multiple Paradigms for Artificial Intelligence, Turku (Åbo), Finland, August 29-31, 1994, 243-248.
- [45] Fredrick von Schoultz, Patrik Eklund, *Information Technology for Project Management: Intelligent Systems and Decision Support*, Proc. Multiple Paradigms for Artificial Intelligence, Turku (Åbo), Finland, August 29-31, 1994, 238-242.
- [46] P. Eklund, J. Forsström, *Computational intelligence for laboratory information systems*, Scand J Clin Lab Invest, **55** Suppl. 222 (1995), 21-30.  
<https://www.ncbi.nlm.nih.gov/pubmed/7569742>
- [47] J. Forsström, K. Irjala, G. Selén, M. Nyström, P. Eklund, *Using data pre-processing and single layer perceptron to analyze laboratory data*, Scand

J Clin Lab Invest, **55** Suppl. 222 (1995), 75-82.  
<https://www.ncbi.nlm.nih.gov/pubmed/7569750>

- [48] J. Zhou, P. Eklund, *Some remarks on learning strategies for parameter identification in rule based systems*, Proc. EUFIT '95, Aachen, Second European Congress on Intelligent Techniques and Soft Computing, August 28-31, 1995, 1911-1916.
- [49] L. Anttila, P. Eklund, L. Kallin, P. Koskinen, T.-A. Penttilä, *The generalised preprocessing perceptron for medical data analysis: A case study for the Polycystic Ovary Syndrome*, EMCSR '96, Vienna, April 9-12, 1996. In: R. Trappl (Ed.), *Cybernetics and Systems '96*, 597-602.
- [50] J. Zhou, P. Eklund, *Parameter sensitivity in tuning fuzzy controllers*, 1996 IEEE Int. Conf. Systems, Man and Cybernetics, Information, Intelligence and Systems, Beijing, October 14-17, 1996, 390-393.  
<https://ieeexplore.ieee.org/document/569802/>
- [51] A. J. Weser , L. Kleinholz , P.-O. Söderström , P. Eklund, G. deMoor , H. Williams , B. Mahr, *Co-operative health information networks*, Medical Informatics Europe, MIE, '96 (Eds. J. Brender et al), IOS Press, Stud. Health Technol. Inform. **34** (1996), 1068-1072.
- [52] T. Riissanen, P. Eklund, *Working with a fuzzy control application development workbench: Case study for a water treatment plant*, Proc. EUFIT '96, Aachen, Second European Congress on Intelligent Techniques and Soft Computing, September 2-5, 1142-1145.
- [53] J. Bohlin, P. Eklund, V. Kairisto, K. Pulkki, L.-M. Voipio-Pulkki, *A probabilistic network for the diagnosis of acute myocardial infarction*, Proc. IFSA '97, Prague, June 1997, vol. 4, 44-49.
- [54] J. Bohlin, P. Eklund (Ed.) , M. Fogström, T. Hellström, L. Kallin, T. Riissanen, H. Virtanen, J. Zhou, *Computational Intelligence*, Lecture



Notes (2nd Ed.), Umeå University, January, 1998.

- [55] L. Kallin, P. Eklund, *The generalised perceptron is a fuzzy neuron and a fuzzy rule*, Presented at CIFT/MEPP 96, Napels, October 10-11, 1996. In: D. Mancini, M. Squillante, A. Ventre (Eds.), *New Trends in Fuzzy Systems*, World Scientific, 1998, 253-265.
- [56] F. Georgsson, P. Eklund, *A metric framework for texture segments*, Proc. SSAB '98, Symposium on Image Analysis, Annual Meeting of the Swedish Society for Automated Image Analysis, Uppsala, March 16-17, 1998, 117-120.
- [57] P. Eklund, J. Bohlin, *Probabilistic networks in laboratory medicine*, Laboratory Medicine 98, XXVI Nordic Congress of Clinical Chemistry (abstract), Scand J Clin Lab Invest, **58** Suppl. 228 (1998), 32.
- [58] P. Eklund, J. Zhou, *Comparison of learning strategies for adaptation of fuzzy controller parameters*, J. Fuzzy Sets and Systems **106** (1999), 321-333.  
<https://www.sciencedirect.com/science/article/pii/S0165011497002923>
- [59] F. Georgsson, P. Eklund, *An identification of handling uncertainties within medical screening: A case study within screening for breast cancer*, Fuzzy & Neuro-Fuzzy Systems in Medicine (Eds. H. N. Teodorescu, A. Kandel, L. C. Jain), CRC Press, 1999, 173-193.
- [60] P. Eklund, L. Kallin, G. Selén, *Computational intelligence for medical information analysis and refinement*, Applications of Fuzzy & Neuro-Fuzzy Systems in Medicine and Bio-Medical Engineering (Eds. H. N. Teodorescu, A. Kandel, L. C. Jain), CRC Press, 1999, 111-134.
- [61] P. Eklund, F. Georgsson, *Unravelling the thrill of metric image spaces*, Discrete Geometry for Computer Imagery (Eds. G. Bertrand, M. Couprie, L. Perroton), Lecture Notes in Computer Science 1568, Springer

Verlag, 1999, 275-285.

[https://link.springer.com/chapter/10.1007/3-540-49126-0\\_21](https://link.springer.com/chapter/10.1007/3-540-49126-0_21)

- [62] J. Karlsson, P. Eklund, C.-G. Hallgren, J. Sjödin, *Data warehousing as a basis for web-based documentation of data mining and analysis*, Medical Informatics Europe '99, Stud. Health Technol. Inform. **68** (1999), 423-427.
- [63] L. Franzen, M. Karlsson, G. Duvefjäll, P. Eklund, I. Lax, K. Nordlinder, I. Näslund, C. Svedberg, B. Zackrisson, *Information technology in radiation therapy* (abstract), 5th ESTRO Meeting in Physics for Clinical Radiotherapy, Göttingen, Germany, April 6-11, 1999.
- [64] P. Eklund, T. Riissanen, *Forest Informatics*, IFORS-SPC-9, April 25-27, 1999, Turku, Finland, 26-29.
- [65] M. Persson, J. Bohlin, P. Eklund, *Development and maintenance of guideline-based decision support for pharmacological treatment of hypertension*, Computer Methods and Programs in Biomedicine, **61** (2000), 209-219.  
<https://www.sciencedirect.com/science/article/pii/S0169260799000401>
- [66] P. Eklund, T. Riissanen, *Software developments for web break risk indication*, 2000 TAPPI PCE&I, March 26-30, 2000, Williamsburg VA.
- [67] P. Eklund, M. A. Galán, M. Ojeda-Aciego, A. Valverde, *Set functors and generalised terms*, Proc. IPMU 2000, 8th Information Processing and Management of Uncertainty in Knowledge-Based Systems Conference, vol. III, 2000, 1595-1599.  
<http://people.cs.umu.se/peklund/publications/ipmu2000.pdf>
- [68] W. Gähler, P. Eklund, *Extension structures and compactifications*, Categorical Methods in Algebra and Topology, CatMAT 2000, August 21-25, 2000, Bremen, 181-205.

- [69] J. Karlsson, P. Eklund, *Data mining and structuring of executable data analysis reports: Guideline development and implementation in a narrow sense*, Medical Infobahn for Europe, Stud. Health Technol. Inform. **77** (2000), 790-794.
- [70] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Generalised terms and composition of monads*, Proc. ESTYLF 2000, 10th Spanish Congress on Fuzzy Logic and Technology, 2000, 155-160.
- [71] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Composing submonads*, Proc. 31st IEEE Int. Symposium on Multiple-Valued Logic (ISMVL 2001), May 22-24, 2001, Warsaw, Poland, 367-372.  
<https://ieeexplore.ieee.org/document/924597/>
- [72] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Set functors and L-fuzzy set categories: towards a fuzzy programming paradigm*, Proc. International ICSC Symposium on Fuzzy Logic and Applications (FLA'2001), 658-664.
- [73] W. Gähler, P. Eklund, *Extension structures and compactifications*, Proc. Joint 9th IFSA World Congress and 20th NAFIPS International Conference, Vancouver, Canada, July 25-28, 2001, 2940-2945.
- [74] P. Eklund, L. Kallin Westin, *Preprocessing for informative, efficient and small networks*, Proc. Joint 9th IFSA World Congress and 20th NAFIPS International Conference, Vancouver, Canada, July 25-28, 2001, 1776-1780.
- [75] J. Karlsson, P. Eklund, *Workflow design as a basis for component interaction*, Proc. Medinfo 2001, London, UK, 2-5 September, 2001, 1158-1160.

- [76] P. Eklund, S. Eriksson, J. Karlsson, H. Lindgren, A. Näslund, *Software development and maintenance strategies for guideline implementation*, Proc. EUNITE-Workshop "Intelligent Systems in Patient Care" (Ed. K.-P. Adlassnig), Austrian Computer Society, 2001, 26-34.
- [77] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *A graphical approach to monad composition*, Electronic Notes in Theoretical Computer Science **40** (2001), 145-160.  
<https://www.sciencedirect.com/science/article/pii/S1571066105800416>
- [78] F. Höppner, F. Klawonn, P. Eklund, *Learning indistinguishability from data*, J. Soft Computing, **6** No 1 (2002), 6-13.  
[http://people.cs.umu.se/peklund/publications/soft\\_computing\\_2002.pdf](http://people.cs.umu.se/peklund/publications/soft_computing_2002.pdf)
- [79] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Set functors, L-fuzzy categories and generalized terms*, Computers and Mathematics with Applications, **43** (2002), 693-705.
- [80] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *A framework for unification using powersets of terms*, Proc. 9th Information Processing and Management of Uncertainty in Knowledge Based Systems Conference (IPMU 2002), 1095-1098.
- [81] J. Karlsson, P. Eklund, *A one-step approach to data retrieval, analysis, and documentation*, Medical Informatics Europe '02, Studies in Health Technology and Informatics, **90** (2002), 320-324.
- [82] H. Lindgren, P. Eklund, S. Eriksson, *Clinical decision support system in dementia care*, Medical Informatics Europe '02, Studies in Health Technology and Informatics, **90** (2002), 568-576.
- [83] P. Eklund, M. Ojeda Aciego (eds.), *Unification in Non-Classical Logics*, Electronic Notes in Theoretical Computer Science **66** No 5 (2002).  
<https://www.sciencedirect.com/journal/electronic-notes-in-theoretical-compu>

- [84] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *A categorical approach to unification of generalised terms*, Electronic Notes in Theoretical Computer Science **66** No 5 (2002).  
<https://www.sciencedirect.com/science/article/pii/S1571066104805139>
- [85] P. Eklund, W. Gähler, *Partially ordered monads and powerset Kleene algebras*, 7th Seminar RelMiCS, 2nd Workshop Kleene Algebra (2003), 40-42.  
<http://people.cs.umu.se/peklund/publications/realmicsEklGah.pdf>
- [86] J. Karlsson, P. Eklund, *Simulations of workflows in radiation therapy*, (Electronic) Proc. Medical Informatics Europe 2003 (poster).
- [87] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Similarities for powerset of terms*, Fuzzy Sets and Systems **144** (2004), 213-225.  
<https://www.sciencedirect.com/science/article/pii/S0165011403004536>
- [88] P. Eklund, A. Näslund, *Towards logic of treatment guidelines*, Proc. AILS-04 Workshop, Lund, 15-16 April 2004, 20-26.
- [89] P. Eklund, A. Näslund, *Mobile guidelines for pharmacologic treatment of hypertension*, Medical and Care Compunetics 1, Studies in Health Technology and Informatics, **103** (2004), 58-60.  
<https://www.ncbi.nlm.nih.gov/pubmed/15747906>
- [90] P. Eklund, W. Gähler, *Partially ordered monads and powerset Kleene algebras*, Proc. 10th Information Processing and Management of Uncertainty in Knowledge Based Systems Conference (IPMU 2004), Vol 3, 18651869.  
<http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.108.7910>
- [91] P. Eklund, A. Rusinowska, H. C. de Swart, *A consensus model of decision-making in committees and coalition formation* (abstract), VI

Spanish Meeting on Game Theory and practice, Elche, July 12-14, 2004.

- [92] H. Lindgren, P. Eklund, *Differential diagnosis of dementia in an argumentation framework*, J. Intelligent & Fuzzy Systems **16** (2005), 1-8.
- [93] H. Lindgren, P. Eklund, *Logic of Dementia Guidelines in a Probabilistic Argumentation Framework*, ECSQARU 2005 (Ed. L. Godo), LNAI 3571, 2005, 341-352.
- [94] P. Eklund, J. Karlsson, J. Rauch, M. Šimůnek, *Computational coronary artery by-pass grafting*, Proc. International Conference of Computational Intelligence and Multimedia Applications (ICCIMA 2005), IEEE Computer Society, 2005, 138-144.
- [95] P. Eklund, M.A. Galán, W. Gähler, J. Medina, M. Ojeda Aciego, A. Valverde, *A note on partially ordered generalized terms*, Proc. of Fourth Conference of the European Society for Fuzzy Logic and Technology and Rencontres Francophones sur la Logique Floue et ses applications (Joint EUSFLAT-LFA 2005), 793-796.
- [96] M. Minock, P. Eklund, H. Lindgren (Eds.), *Proc. SAIS 2006, The 23rd Annual Workshop of the Swedish Artificial Intelligence Society*, Umeå May 10-12, 2006.
- [97] P. Eklund, H. Lindgren, *Towards Dementia Diagnosis Logic*, Proc. SAIS 2006, The 23rd Annual Workshop of the Swedish Artificial Intelligence Society Umeå May 10-12, 2006, 57-65.
- [98] P. Eklund, H. Lindgren, *Towards Dementia Diagnosis Logic*, Proc. 11th Int. Conf. Information Processing and Management of Uncertainty in Knowledge-based Systems (IPMU), Editions EDK, Paris 2006, 1251-1257.

- [99] P. Eklund, J. Karlsson, J. Rauch, M. Šimůnek, *On the logic of medical decision support*, in: Theory and Applications of Relational Structures as Knowledge Instruments II (Eds. H. de Swart, E. Orlowska, G. Schmidt, M. Roubens), LNAI 4342, Springer, 2006, 50-59.
- [100] P. Eklund, M. A. Galán, W. Gähler, *Partially ordered monads for monadic topologies, Kleene algebras and rough sets*, Proc. 4th Irish Conf. Mathematical Foundations of Computer Science and Information Technology (MFCSIT), 2006, 349-352.
- [101] P. Eklund, M.A. Galán, *Monads can be rough*, S. Greco et al. (Eds.), Proceedings of The Fifth International Conference on Rough Sets and Current Trends in Computing (RSCTC 2006), Lecture Notes in Artificial Intelligence **4259** (Springer-Verlag Berlin Heidelberg 2006), 77-84, 2006.  
[https://link.springer.com/chapter/10.1007/11908029\\_9](https://link.springer.com/chapter/10.1007/11908029_9)
- [102] A. Rusinowska, R. Berghammer, P. Eklund, J.-W. van der Rijt, M. Roubens, H. de Swart, *Social software for coalition formation*, in: Theory and Applications of Relational Structures as Knowledge Instruments II (Eds. H. de Swart, E. Orlowska, G. Schmidt, M. Roubens), LNAI 4342, Springer, 2006, 1-30.  
[https://link.springer.com/chapter/10.1007/11964810\\_1](https://link.springer.com/chapter/10.1007/11964810_1)
- [103] P. Eklund, A. Rusinowska, H. C. de Swart, *Consensus reaching in committees*, European Journal of Operational Research **178** (2007), 185-193.  
<https://halshs.archives-ouvertes.fr/halshs-00159838/document>
- [104] P. Eklund, M.A. Galán, *The rough powerset monad*, Journal of Multiple-Valued Logic and Soft Computing **13** (2007), 321-334.  
<https://www.computer.org/csdl/proceedings/ismvl/2007/2831/00/28310027.pdf>
- [105] P. Eklund, M. A. Galán, J. Medina, M. Ojeda Aciego, A. Valverde, *Powersets of terms and composite monads*, Fuzzy Sets and Systems **158** (2007), 2552-2574.  
<https://www.sciencedirect.com/science/article/pii/S0165011407002655>

- [106] P. Eklund, M.A. Galán, *On Logic with Fuzzy and Rough Powerset Monads*, RSEIPS 2007, Warsaw, Lecture Notes in Artificial Intelligence **4585** (2007), 391-399.
- [107] P. Eklund, M.A. Galán, J. Karlsson, *Rough monadic interpretations of pharmacologic information*, ICCS 2007, Proceedings of the 15th International Workshops on Conceptual Structures (Ed. B. Akhgar), Springer, 2007, 108-113.
- [108] P. Eklund, J. Karlsson, A. Näslund, *Mobile pharmacology*, ICHIT 2006 (Eds. M.S. Szczuka et al.), Lecture Notes in Artificial Intelligence **4413** (2007), 522-533.
- [109] P. Eklund, A. Rusinowska, H. de Swart, *A consensus model of political decision-making*, Annals of Operations Research **158** (2008), 5-20.  
<https://halshs.archives-ouvertes.fr/halshs-00283200/document>
- [110] P. Eklund, M.A. Galán, *Partially ordered monads and rough sets*, J. F. Peters, A. Skowron (Eds.), Transactions on Rough Sets VIII, Lecture Notes in Computer Science **5084** (2008), Springer, 53-74.
- [111] P. Eklund, R. Helgesson, H. Lindgren, *Towards refinement of clinical evidence using general logics*, L. Rutkowski et al. (Eds.), ICAISC 2008, Lecture Notes in Artificial Intelligence **5097** (2008), 1029-1040.
- [112] P. Eklund, J. Kortelainen, *What is fuzzification about?*, Proc. LINZ2008.
- [113] P. Eklund, M. A. Galán, J. Kortelainen, *On fuzzy successors*, L. Magdalena, M. Ojeda-Aciego, J.L. Verdegay (eds): Proceedings of IPMU'08, 21st Int. Conf. Information Processing and Management of Uncertainty in Knowledge-based Systems, Torremolinos (Malaga), June 22-27, 2008, 124-128.



- [114] P. Eklund, *Non-classical logic for elderly care management*, L. Magdalena, M. Ojeda-Aciego, J.L. Verdegay (eds): Proceedings of IPMU'08, 21st Int. Conf. Information Processing and Management of Uncertainty in Knowledge-based Systems, Torremolinos (Malaga), June 22-27, 2008, 646-651.
- [115] P. Eklund, *General logics and management of ageing*, Third 2008 International Conference on Convergence and Hybrid Information Technology (ICCIT 2008), IEEE Computer Society, 424-429.
- [116] P. Eklund, M. A. Galán, W. Gähler, *Partially ordered monads for monadic topologies, Kleene algebras and rough sets*, Electronic Notes in Theoretical Computer Science **225** No 5 (2009), 67-81.  
<https://www.sciencedirect.com/science/article/pii/S1571066108005306>
- [117] P. Eklund, M.A. Galán, J. Karlsson, *Categorical innovations for rough sets*, In: Rough Set Theory: A True Landmark in Data Analysis (Eds. A. Abraham, R. Falcon, R. Bello), Studies in Computational Intelligence, Vol. 174, Springer, 2009, 45-69.  
<https://www.springer.com/gb/book/9783540899204>
- [118] P. Eklund, L. Kallin Westin, *Preprocessing perceptrons and multivariate reference values*, Data Mining and Medical Knowledge Management: Cases and Applications (Ed. P. Berka), IGI Global, 2009, 108-120.
- [119] P. Eklund, J. Kortelainen, L. N. Stout, *Introducing fuzziness in monads: cases of the term monad and the powerobject monad*, Abstract in LINZ2009, 30th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 3-7, 2009.
- [120] P. Eklund, M. A. Galán, J. Kortelainen, L. N. Stout, *Paradigms for non-classical substitutions*, Proc. 39th IEEE International Symposium on Multiple-Valued Logic (ISMVL 2009), May 21-23, 2009, Naha, Okinawa (Japan), 77-79.  
<https://ieeexplore.ieee.org/document/5010378/>

- [121] P. Eklund, *Assessment scales and consensus guidelines encoded in formal logic*, 19th IAGG World Congress of Gerontology and Geriatrics, Paris, 2009, Journal of Nutrition, Health & Aging **13** Suppl 1 (2009), S558-S559.
- [122] P. Eklund, *Early diagnosis of cognitive disorder based on ground categories for decision support structures*, 18th IEEE International Conference on Fuzzy Systems (FUZZ-IEEE 2009), Jeju (Korea), August 20-24, 2009, 997-1002.
- [123] P. Eklund, R. Helgesson, *Composing partially ordered monads*, 11th International Conference on Relational Methods in Computer Science, RelMiCS11, (Eds. R. Berghammer, A. Jaoua, B. Möller), Lecture Notes in Computer Science **5827** (2009), 88-102.  
[https://link.springer.com/chapter/10.1007/978-3-642-04639-1\\_7](https://link.springer.com/chapter/10.1007/978-3-642-04639-1_7)
- [124] P. Eklund, M. Johansson, J. Karlsson, R. Åström, *BPMN and its Semantics for Information Management in Emergency Care*, Fourth 2009 International Conference on Convergence and Hybrid Information Technology (ICCIT 2009), IEEE Computer Society, 273-278.
- [125] P. Eklund, R. Helgesson, *Monadic extensions of institutions*, Fuzzy Sets and Systems **161** (2010), 23542368.  
<https://www.sciencedirect.com/science/article/pii/S0165011410000916>
- [126] P. Eklund, M. Fedrizzi, H. Nurmi, *A categorical approach to the extension of social choice functions*, E. Hüllermeier, R. Kruse, and F. Hoffmann (Eds.): IPMU 2010, Part II, CCIS **81**, Springer-Verlag Berlin Heidelberg, 2010, 261-270.  
<https://pdfs.semanticscholar.org/f5d7/89ff3c4c2b28ea79fc994f0c3708b06a9117>.
- [127] P. Eklund, *Signatures for assessment, diagnosis and decision-making in ageing*, E. Hüllermeier, R. Kruse, and F. Hoffmann (Eds.): IPMU 2010, Part II, CCIS **81**, Springer-Verlag Berlin Heidelberg, 2010, 271-279.  
[https://link.springer.com/chapter/10.1007/978-3-642-14058-7\\_27](https://link.springer.com/chapter/10.1007/978-3-642-14058-7_27)

- [128] P. Eklund, *OBSERVE-ASSESS-DECIDE for information-oriented elderly care*, 4<sup>th</sup> Global Conference of the Alliance for Healthy Cities (AFHC 2010), October 26-29, 2010, Gangnam-gu, Seoul, Korea, 48-49.
- [129] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, *Paradigms for many-sorted non-classical substitutions*, 2011 41st IEEE International Symposium on Multiple-Valued Logic (ISMVL 2011), 318-321.  
<https://ieeexplore.ieee.org/document/5954254/>
- [130] P. Eklund, R. Helgesson, *Extension of General Logic* (abstract), Types2011, 18th Workshop Types for Proofs and Programs (2011).
- [131] P. Eklund, J. Kortelainen, L. N. Stout, *Adding fuzziness using a monadic approach to terms and powerobjects*, Fuzzy Sets and Systems **192** (2012), 104-122.  
<https://www.sciencedirect.com/science/article/pii/S0165011410004343>
- [132] P. Eklund, *Category theoretic ontology for representation of assessment scales and consensus guidelines in elderly care*, In: Fuzziness and Medicine: Philosophical Reflections and Application Systems in Health Care (Eds. R. Seising, M. E. Tabacchi), Studies in Fuzziness and Soft Computing **302**, Springer, 2012, 401-413.
- [133] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, *Ontology < Logic or Ontology = Logic ?* (abstract), LINZ2012, 33rd Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 14-18, 2012, 21-24.
- [134] P. Eklund, R. Helgesson, *Modern eyes on  $\lambda$  terms*, Presented at International Workshop on 75 Years of the  $\lambda$ -Calculus, St Andrews (Scotland), 15 June 2012. GLIOC Notes, October, 2013.  
[http://www.glioc.com/files\\_glioc/ModernEyesOnLambdaCalculus.pdf](http://www.glioc.com/files_glioc/ModernEyesOnLambdaCalculus.pdf)
- [135] P. Eklund, *Fuzzy Sets and Signatures*, GLIOC Notes, October, 2013.  
[http://www.glioc.com/files\\_glioc/FuzzySetsAndSignatures.pdf](http://www.glioc.com/files_glioc/FuzzySetsAndSignatures.pdf)

- [136] H.-T. Eklund, P. Eklund, *Logic and process drama*, Drama Boreale, Earth-Air-Water-Fire (Eds. R. B. Thorkelsdóttir, Á. H. Ragnardóttir) FLISS, Háskólaprent, Reykjavík, 2013, 103-115.
- [137] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, *From Aristotle to Lotfi*, In: On Fuzziness: A Homage to Lotfi A. Zadeh - Vol. I (Eds. R. Seising, E. Trillas, C. Moraga, S. Termini), Studies in Fuzziness and Soft Computing (Springer), **298** (2013), 147-152.  
[https://link.springer.com/chapter/10.1007/978-3-642-35641-4\\_23](https://link.springer.com/chapter/10.1007/978-3-642-35641-4_23)
- [138] P. Eklund, *Elderly care cost control using observation, assessment and decision-making*, Handbook of Research on ICTs for Human-Centered Healthcare and Social Care Services, Vol. I (Eds. M. M. Cruz-Cunha, I. M. Miranda, P. Gonçalves), IGI Global, 2013, 320-329.  
<https://www.igi-global.com/chapter/elderly-care-cost-control-using/77149>
- [139] P. Eklund, M. Immonen, T. Petäkoski-Hult, H. Similä, *The logic of geriatrics*, 20th IAGG World Congress of Gerontology and Geriatrics, Seoul, June 23-27, 2013, Journal of Nutrition, Health & Aging **17** Suppl 1 (2013), S305-S306.
- [140] M. Frilund, P. Eklund, L. Fagerström, K. Eriksson, *Assessment of ethical ideals and ethical manners in care of older people*, Nursing Research and Practice, Volume 2013 (2013), 11 pages,  
<http://dx.doi.org/10.1155/2013/374132>  
<https://www.hindawi.com/journals/nrp/2013/374132/>
- [141] P. Eklund, M. Fedrizzi, R. Helgesson, *Monadic Social Choice*, In: Multicriteria and Multiagent Decision Making with Applications to Economic and Social Sciences (Eds. Š. Hošková-Mayerová, J. Kacprzyk, A. Mauro, A. Ventre), Studies in Fuzziness and Soft Computing (Springer), **305** (2013), 143-150.  
[https://link.springer.com/chapter/10.1007/978-3-642-35635-3\\_12](https://link.springer.com/chapter/10.1007/978-3-642-35635-3_12)

- [142] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, G. Moreno, C. Vasquez, *Towards a Categorical Description of Fuzzy Logic Programming*, Working paper accepted for presentation in PROLE'13, 2013.
- [143] M. Immonen, H. Similä, T. Petäkoski-Hult, P. Eklund, *Self-assessing fall risk and motivating technologies for fall prevention*, TAR 2013, poster presentation.
- [144] H. Similä, M. Immonen, C. García Gordillo, T. Petäkoski-Hult, P. Eklund, *Focus group evaluation of scenarios for fall risk assessment and fall prevention in two countries*, In: Ambient Assisted Living and Active Aging (Eds. C. Nugent, A. Coronato, J. Bravo), Lecture Notes in Computer Science **8277** (2013), 39-46.
- [145] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, G. Moreno, C. Vasquez, *Towards categorical fuzzy logic programming*, WILF 2013 - 10th International Workshop on Fuzzy Logic and Applications (Eds. F. Masulli, G. Pasi, R. Yager), Lecture Notes in Computer Science **8256** (2013), 109-121.  
[https://link.springer.com/chapter/10.1007/978-3-319-03200-9\\_12](https://link.springer.com/chapter/10.1007/978-3-319-03200-9_12)
- [146] P. Eklund, M.A. Galán, R. Helgesson, J. Kortelainen, *Fuzzy terms*, Fuzzy Sets and Systems **256** (2014), 211-235.  
<https://www.sciencedirect.com/science/article/pii/S0165011413000997>
- [147] P. Eklund, M.A. Galán, J. Kortelainen, M. Ojeda-Aciego, *Monadic formal concept analysis*, RSCTC 2014, (Eds. C. Cornelis et al.), Lecture Notes in Artificial Intelligence **8536** (2014), 201-210.  
[https://link.springer.com/chapter/10.1007%2F978-3-319-08644-6\\_21](https://link.springer.com/chapter/10.1007%2F978-3-319-08644-6_21)
- [148] P. Eklund, *The logic and ontology of assessment of conditions in older people*, In: Human-Centric Decision-Making Models for Social Sciences (Eds. P. Guo, W. Pedrycz), Studies in Computational Intelligence (Springer), **502** (2014), 391-400.  
[https://link.springer.com/chapter/10.1007%2F978-3-642-39307-5\\_16](https://link.springer.com/chapter/10.1007%2F978-3-642-39307-5_16)

- [149] H.-T. Eklund, P. Eklund, *Process drama based information management for assessment and classification in learning*, Social Networks: A Framework of Computational Intelligence (Eds. W. Pedrycz and S.-M. Chen), Studies in Computational Intelligence (Springer), **526** (2014), 333-352.  
[https://link.springer.com/chapter/10.1007%2F978-3-319-02993-1\\_15](https://link.springer.com/chapter/10.1007%2F978-3-319-02993-1_15)
- [150] P. Eklund, U. Höhle, J. Kortelainen, *Term monad in monoidal biclosed categories*, Abstract in LINZ2014, 35th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 18-22, 2014.  
 Presentation,  
[http://people.cs.umu.se/peklund/publications/Linz\\_talk\\_2014C.pdf](http://people.cs.umu.se/peklund/publications/Linz_talk_2014C.pdf)
- [151] P. Eklund, U. Höhle, J. Kortelainen, *The fundamentals of lative logic*, Abstract in LINZ2014, 35th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 18-22, 2014.  
 Presentation,  
<http://people.cs.umu.se/peklund/publications/linz2014-slides.pdf>
- [152] P. Eklund, *A Lative Logic view of the Filioque Addition*, Handbook of the World Congress on the Square of Opposition IV (Eds. J.-Y. Béziau, K. Gan-Krzywoszyńska), Pontifical Lateran University, Vatican, May 5-9, 2014, 46-47.  
 Presentation,  
<http://people.cs.umu.se/peklund/publications/vatican2014-slides.pdf>
- [153] P. Eklund, *Logic-based foundations within fall prevention recommendations*, European Geriatric Medicine **6** Supplement 1 (2015), S172.
- [154] M. Illario, M. Vollenbroek-Hutten, D. W. Molloy, E. Menditto, G. Iaccarino, P. Eklund, *Active and Healthy Ageing and Independent Living* (editorial), Journal of Aging Research, Volume 2015 (2015), 3 pages.  
<http://dx.doi.org/10.1155/2015/542183>

- [155] M. Immonen, H. Similä, E. Arabiurrutia Altube, P Eklund, L.-Å Johansson, C. García-Gordillo, *Technologies supporting the fall risk management process* (Minisymposia paper), 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society of the IEEE Engineering in Medicine and Biology Society (EMBC'15), Milano, Italy on August 25-29, 2015.
- [156] P. Eklund, U. Höhle, J. Kortelainen, *A survey on the categorical term construction with applications*, Fuzzy Sets and Systems **298** (2016), 128-157.  
<https://www.sciencedirect.com/science/article/pii/S0165011415003152>
- [157] H. Blain, T. Masud, P. Dargent-Molina, F.C. Martin, E. Rosendahl, N. Van Der Velde, J. Bousquet, A. Benetos, C. Cooper, J.A. Kanis, J.Y. Reginster, R. Rizzoli, B. Cortet, M. Barbagallo, K.E. Dreinhöfer, B. Velas, S. Maggi, T. Strandberg, For the EUGMS Falls and Fracture Interest Group, The International Association of Gerontology and Geriatrics for the European Region (IAGG-ER), The European Union of Medical Specialist (EUMS), The Fragility Fracture Network (FFN), The European Society for Clinical and Economic Aspects of Osteoporosis and Osteoarthritis (ESCEO), and the International Osteoporosis Foundation (IOF), *A comprehensive fracture prevention strategy in older adults - The European Union Geriatric Medicine Society (EUGMS) Statement*, J Nutr Health Aging, **20** (2016), 647-652.  
<https://link.springer.com/article/10.1007%2Fs40520-016-0588-4>
- [158] J. Bousquet, I. Agache, A. Bedbrook, C. Bachert, M. Bewick, G.W. Canonica, T. Casale, N.H. Chavannes, G. De Carlo, P. Demoly, W.J. Fokkens, P. Hellings, R. Pawankar, B. Samolinski, H.J. Schunemann, T. Zuberbier, W. Aberer, M. Adachi, C.A. Akdis, M. Akdis, I. Annesi-Maesano, J. Ankri, I.J. Ansotegui, J.M. Anto, S. Arnavielhe, A. Asarnej, H. Arshad, F. Avolio, I. Baiardini, A.K. Baigenzhin, C. Barbara, M. Barbagallo, E.D. Bateman, B. Beghé, E.H. Bel, A. Ben Kheder, K.S. Bennoor, M. Benson, K.C. Bergmann, A.Z. Biaoszewski, T. Bieber, C. Bindslev-Jensen, L. Bjermer, H. Blain, F. Blasi, A.L. Boner, M. Bonini, S. Bonini, R. Bourret, S. Bosnic-Anticevitch, L.P. Boulet, P.J. Bous-

quet, F. Braido, A.H. Briggs, C.E. Brightling, J. Brozek, C. Bucca, R. Buhl, C. Bunu, P.G. Burney, E. Burte, A. Bush, F. Caballero-Fonseca, D. Caimmi, M.A. Calderon, P.A.M. Camargos, T. Camuzat, V. Cardona, P. Carreiro-Martins, A.M. Carriaso, K.H. Carlsen, W. Carr, A.M. Cepeda Sarabia, M. Cesari, L. Chatzi, Y.Z. Chen, R. Chiron, T. Chivato, E. Chkhartishvili, A.G. Chuchalin, K.F. Chung, G. Ciprandi, I. Cirule, J. Correia de Sousa, D.J. Costa, L. Cox, G. Crooks, A.A. Cruz, A. Custovic, R. Dahl, S.E. Dahlen, U. Darsow, F. De Blay, T. Dedeu, D. Deleanu, J.A. Denburg, P. Devillier, G. De Vries, A. Didier, A.T. Dinh-Xuan, D. Dokic, H. Douagui, G. Dray, R. Dubakiene, S.R. Durham, G. Du Toit, M.S. Dykewicz, P. Eklund, Y. El-Gamal, R. Emuzyte, J. Farrell, A. Fink Wagner, A. Fiocchi, M. Fletcher, J. Fonseca, F. Forastiere, R.N. Foronda, M. Gaga, A. Gamkrelidze, B. Gemicioğlu, J.E. Gereda, U. Gehring, R. Gerth van Wick, S. González Diaz, P. Gorski, M. Gotua, I. Grisle, L. Grouse, N.A. Guldemon, Z. Gutter, M.A. Guzmán, T. Haahtela, B. Hellquist-Dahl, J. Heinrich, F. Horak, JOB. Hourihane, P. Howarth, M. Humbert, M.E. Hyland, G. Iaccarino, M. Illario, J.C. Ivancevich, E.J. Jares, C. Jeandel, S.L. Johnston, G. Joos, O. Jonquet, K.S. Jung, J. Just, M. Jutel, I. Kaidashev, M. Khaitov, O. Kalayci, A.F. Kalyoncu, P. Kardas, T. Keil, P.K. Keith, M. Kerckhof, H.A.M. Kerstjens, N. Khaltayev, L. Klimek, B. Koffi N’Goran, M. Kogevinas, V. Kolek, G.H. Koppelman, M.L. Kowalski, M. Kuitunen, I. Kull, P. Kuna, V. Kvedariene, B. Lambrecht, S. Lau, D. Larenas-Linnemann, D. Laune, L.T.T. Le, P. Lieberman, B. Lipworth, J. Li, K. Lodrup Carlsen, R. Louis, C. Lupinek, W. MacNee, Y. Magar, A. Magnan, B. Mahboub, D. Maier, I. Majer, M.J. Makela, J. Malva, P. Manning, E. De Manuel Keenoy, G.D. Marshall, M.R. Masjedi, E. Mathieu-Dupas, M. Maurer, S. Mavale-Manuel, E. Melén, E. Melo-Gomes, E.O. Meltzer, J. Mercier, H. Merk, N. Miculinic, F. Mihaltan, B. Milenkovic, J. Millot-Keurinck, Y. Mohammad, M. Molimard, I. Momas, A. Montilla-Santana, M.Morais-Almeida, R. Mösges, J. Mullol, A. Muraro, R. Murray, L. Namazova-Baranova, R. Naclerio, R. Nadif, A. Neou, H. Neffen, K. Nekam, A. Nieto, B. Niggemann, L. Nogueira-Silva, M. Nogues, T.D. Nyembue, R.E. O’Hehir, K. Ohta, Y. Okamoto, K. Okubo, M. Olive-Elias, S. Ouedraogo, P. Paggiaro, I. Pali-Schöll, S. Palkonen, P. Panzner, N. Papadopoulos, A. Papi, H.S. Park, G. Passalacqua, I. Pavord, R. Pawankar, S. Pedersen, A.M. Pereira, O. Pfaar, R. Picard, B. Pigearias,



I. Pin, D. Plavec, W. Pohl, T.A. Popov, F. Portejoie, D. Postma, P. Potter, L. Poulsen, D. Price, B. Pugin, K.F. Rabe, F. Raciborski, B. Galan, S. Reitamo, S. Repka-Ramirez, G. Roberts, C. Robalo-Cordeiro, F. Rodenas, L. Rodriguez-Mañas, C. Rolland, M. Roman Rodriguez, A. Romano, J. Rosado-Pinto, N. Rosario, L. Rosenwasser, M. Rottem, D. Ryan, M. Sanchez-Borges, J. Sastre-Dominguez, G.K. Scaddin, P. Schmid-Grendelmeier, E. Serrano, A. Sheikh, M. Shields, N. Scichilone, F.E.R. Simons, V. Siroux, J.C. Sisul, I. Skrindo, H.A. Smit, D. Solé, T. Sooronbaev, O. Spranger, R. Stelmach, P.J. Sterk, T. Strandberg, J. Sunyer, C. Thijs, A. Todo-Bom, P.V. Tomazic, M. Triggiani, R. Valenta, A.L. Valero, A. Valiulis, E. Valovirta, M. van Eerd, E. van Ganse, M. van Hage, O. Vandenplas, B. Vellas, M.T. Ventura, G. Vezzani, T. Vazankari, P. Vichyanond, G. Viegi, T. Vontetsianos, M. Wagenmann, S. Walker, D.Y. Wang, U. Wahn, B. Whalley, M. Wickman, D.M. Williams, S. Williams, N. Wilson, J. Wright, B.P. Yawn, P.K. Yiallourous, A. Yorgancioglu, I. Young, O.M. Yusuf, A. Zaidi, H.J. Zar, M.E. Zernotti, L. Zhang, N. Zhong, M. Zidarn, *ARIA 2016: Care pathways implementing emerging technologies for predictive medicine in rhinitis and asthma across the life cycle*, Clin Transl Allergy **6**:47 (2016), 1-14  
<https://ctajournal.biomedcentral.com/articles/10.1186/s13601-016-0137-4>

[159] M. Illario, M. Vollenbroek-Hutten, D. W. Molloy, E. Menditto, G. Iaccarino, P. Eklund, *Active and Healthy Aging and Independent Living* (editorial), Journal of Aging Research, Volume 2016 (2016), 3 pages.  
<http://dx.doi.org/10.1155/2016/8062079>

[160] W. Wang, N. Yang, Y. Zhang, F. Wang, T. Cao, P. Eklund, *A review of road extraction from remote sensing images*, J. Traffic and Transportation Eng. **3** (2016), 271-282.  
<https://www.sciencedirect.com/science/article/pii/S2095756416301076>

[161] P. Eklund, *Lative logic accomodating the WHO Family of International Classifications*, Encyclopedia of E-Health and Telemedicine (Eds. Maria Manuela Cruz-Cunha, Isabel Miranda), IGI Global, 2016, 661-673.  
<https://www.igi-global.com/chapter/lative-logic-accomodating-the-who-family>

- [162] P. Eklund, U. Höhle, J. Kortelainen, *Non-commutative quantales for many-valuedness in applications*, J.P. Carvalho et al. (Eds.): IPMU 2016, Part I, CCIS **610**, Springer-Verlag Berlin Heidelberg, 2016, 437-449.  
[https://link.springer.com/chapter/10.1007/978-3-319-40596-4\\_37](https://link.springer.com/chapter/10.1007/978-3-319-40596-4_37)
- [163] P. Eklund, *The syntax of many-valued relations*, J.P. Carvalho et al. (Eds.): IPMU 2016, Part II, CCIS **611**, Springer-Verlag Berlin Heidelberg, 2016, 61-68.  
[https://link.springer.com/chapter/10.1007/978-3-319-40581-0\\_6](https://link.springer.com/chapter/10.1007/978-3-319-40581-0_6)
- [164] P. Eklund, M. Löfstrand, *Many-valued logic in manufacturing*, Position Papers of the 2016 Federated Conference on Computer Science and Information Systems (FedCSIS), ACSIS **9** (2016), 1117.  
<https://pdfs.semanticscholar.org/b2b4/a1d37685fc4d3503755cd51ab0e00d1c7444>.
- [165] P. Eklund, *Logic-Based Medicine versus Evidence-Based Medicine for Modeling Qualified-Self Health Kits*, In: Ecosystems and Technology Idea Generation and Content Model Processing (Ed. C. F. Nourani), Innovation Management and Computing, Apple Academic Press, October, 2016.  
<http://www.appleacademicpress.com/ecosystems-and-technology-idea-generation>
- [166] J. Bousquet, M. Bewick, A. Cano, P. Eklund, G. Fico, N. Goswami, N. A. Guldmond, D. Henderson, M.J. Hinkema, G. Liotta, A. Mair, W. Molloy, A. Monaco, I. Montsonis-Paya, A. Nizinska, H. Papadopoulos, A. Pavlickova, S. Pecorelli, A. Prados-Torres, R.E. Roller-Wirnsberger, D. Somekh, C. Vera-Muñoz, L. Visser, J. Farrell, J. Malva, K. Andersen Ranberg, T. Camuzat, A.M. Carriaso, G. Crooks, Z. Gutter, G. Iacarino, E. Manuel de Keenoy, G. Moda, L. Rodriguez-Manas, T. Vontetsianos, C. Abreu, J. Alonso, C. Alonso-Bouzon, J. Ankri, M.T. Arredondo, F. Avolio, A. Bedbrook, A.Z. Białoszewski, H. Blain, R. Bourret, M.F. Cabrera-Umpierrez, A. Catala, R. O'Caomh, M. Cesari, N. Chavannes, J. Correia-da-Sousa, T. Dedeu, M. Ferrando, M. Ferri, W. J. Fokkens, F. Garcia-Lizana, O. Gurin, P.W. Hellings, T. Haahtela, M. Illario, M.C. Inzerilli, K. Lodrup-Carlsen, P. Kardas, T. Keil, M. Maggio, A. Mendez-

Zorilla, E. Menditto, J. Mercier, J.P. Michel, R. Murray, M. Nogues, I. OByrne-Maguire, D. Pappa, A.S. Parent, M. Pastorino, C. Robalo-cordeiro, B. Samolinski, P. Siciliano, A.M. Teixeira, S.I. Tsartara, A. Valiulis, O. Vandenplas, T. Vazankari, B. Vellas, M. Vollenbroek-Hutten, M. Wickman, A. Yorgancioglu, T. Zuberbier, M. Barbagallo, G.W. Canonica, L. Klimek, S. Maggi, W. Aberer, C. Akdis, I.M. Adcock, I. Agache, C. Albera, F. Alonso-Trujillo, M. Aangel Guaracia, I. Annesi-Maesano, J. Apostolo, S.H. Arshad, V. Attalin, A. Avignon, C. Bachert, I. Baroni, E. Bel, M. Benson, C. Bescos, F. Blasi, C. Barbara, K.C. Bergmann, P.L. Bernard, S. Bonini, P.J. Bousquet, B. Branchini, C.E. Brightling, V. Bruguière, C. Bunu, A. Bush, D.P. Caimmi, M.A. Calderon, G. Canovas, V. Cardona, K.H. Carlsen, A. Cesari, E. Chkhartishvili, R. Chiron, T. Chivat, K.F. Chung, M. DAngelantonio, G. De Carlo, D. Cholley, F. Chorin, B. Combe, B. Compas, D.J. Costa, E. Costa, O. Coste, A.-L. Coupet, G. Crepaldi, A. Custovic, R. Dahl, S.E. Dahlen, P. Demoly, P. Devillier, A. Didier, A.T. Dinh-Xuan, R. Djukanovic, D. Dokic, G. Du Toit, R. Dubakiene, A. Dupeyron, R. Emuzyte, A. Fiocchi, Fink-Wagner, M. Fletcher, J. Fonseca, B. Fougère, A. Gamkrelidze, G. Garces, J. Garcia-Aymeric, B. Garcia-Zapirain, B. Gemicioğlu, C. Gouder, B. Hellquist-Dahl, I. Hermosilla-Gimeno, D. Héve, C. Holland, M. Humbert, M. Hyland, S.L. Johnston, J. Just, M. Jutel, I.P. Kaidashhev, M. Kaitov, O. Kalayci, A.F. Kalyoncu, W. Keijser, H. Kerstjens, J. Knezović, M. Kowalski, G.H. Koppelman, T. Kotska, M. Kovac, I. Kull, P. Kuna, V. Kvedariene, V. Lepore, W. Macnee, M. Maggio, A. Magnan, I. Majer, P. Manning, M. Marcucci, T. Marti, M. Masoli, E. Melen, N. Miculinic, F. Mihaltan, B. Milenkovic, J. Millot-Keurinck, H. Mlinarić, I. MOomas, S. Monteford, M. Morais-Almeida, T. Moreno-Casbas, R. Mösges, J. Mullol, R. Nadif, M. Nalin, E. Navarro-Pardo, K. Nekam, G. Ninot, D. Paccard, S. Pais, E. Palummeri, P. Panzner, N.K. Papadopoulos, C. Papanikalou, G. Passalacqua, E. Pastor, M. Perrot, D. Plavec, T.A. Popov, D.S. Postma, D. Price, N. Raffort, J.C. Reuzeau, J.M. Robine, F. Rodenas, F. Robusto, N. Roche, A. Romano, V. Romano, J. Rosado-Pinto, F. Roubille, F. Ruiz, D. Ryan, T. Salcedo, P. Schmid-Grendelmeier, H. Schulz, H.J. Schunemann, E. Serrano, A. Sheikh, M. Shields, N. Siafakas, N. Scichilone, P. Siciliano, I. Skrindo, H.A. Smit, S. Sourdet, E. Sousa-Costa, O. Spranger, T. Sooronbaev, V. Sruk, P.J. Sterk, A. Todo-Bom, J. Touchon, D. Tramontano, M. Triggiani, S.I.

Tsartara, A.L. Valero, E. Valovirta, E. Van Ganse, M. Van Hage, M. Van Den Berge, O. Vandenplas, M.T. Ventura, I. Vergara, G. Vezzani, D. Vidal, G. Viegi, M. Wagemann, B. Whalley, M. Wickman, N. Wilson, P.K. Yiallourous, M. Žagar, A. Zaidi, M. Zidarn, E.J. Hoogerwerf, J. Usero, R. Zuffada, A. Senn, B. De Oliveira-Alves, *Building bridges for innovation in ageing: Synergies between action groups of the EIP on AHA*, *J Nutr Health Aging* **21** (2017), 92-104.

<https://link.springer.com/article/10.1007/s12603-016-0803-1>

- [167] P. W. Hellings, et al, ARIA and EPOS working groups (P. Eklund collaborator in ARIA and EPOS working groups), *Positioning the Principles of Precision Medicine in Care Pathways of Allergic Rhinitis and Chronic Rhinosinusitis*, - an EUFOREA-ARIA-EPOS-AIRWAYS ICP statement, *Allergy* **72** (2017), 1297-1305.

<http://onlinelibrary.wiley.com/doi/10.1111/all.13162/epdf>

- [168] M. Nogue, J. Millot-Keurinck, M. Iglesia-Gomez, C. Alonso-Bouzon, M. Bewick, A. Bialoszewski, H. Blain, A. Blanckaert, C. Cambona, M. Bonin, J. Bringer, J. C. Dehaye, I. Dévé, A. Emeriau, P. Eklund, J. Farrell, G. Fico, C. Flouquet, N. Guldemon, D. Henderson, M. Hinkema, G. Iaccarino, C. Jeandel, P. Kardas, L. Lascaray-Blanc, M. M. Limongi, G. Liotta, M. Maggio, M. Malavasi, J. O. Malva, A. Monaco, I. Monsonis, R. Murray, G. Ninot, A. Nizinska, I. OByrne, K. Oddoux, D. Paccard, E. Palummeri, H. Papadopoulos, E. Pavy, F. Perrein, F. Ramperez, J. Renier, J. C. Reuzeau, J. F. Rouget, J. Touchon, C. Tziraki, F. Visser, F. Portejoie, A. Bedbrook, G. Rivire, J. Bousquet, *Active and healthy ageing: From health prevention to personal care. CARSAT-MACVIA 7 meeting. Montpellier, 78th December 2015*, *European Geriatric Medicine* **8** (2017), 511-519.

<https://www.sciencedirect.com/science/article/pii/S1878764917301237?via%3Di>

- [169] C. F. Nourani, P. Eklund, *Term Functors and Signature Product Models: A Brief*, 2017 Joint Mathematics Meeting, Atlanta January 4-7, 2017 (abstract).

- [170] P. Eklund, J. Gutiérrez García, U. Höhle, J. Kortelainen, *Non-commutativity and many-valuedness: The topological representation of the spectrum of  $C^*$ -algebras*, Abstract in LINZ2017, 37th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 7-10, 2017.
- [171] P. Eklund, U. Höhle, J. Kortelainen, *Applications of modules on unital quantales*, Abstract in LINZ2017, 37th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 7-10, 2017.  
Presentation,  
<http://people.cs.umu.se/peklund/publications/linz2017appl-slides.pdf>
- [172] P. Eklund, J. Gutiérrez García, U. Höhle, J. Kortelainen, *Complete many-valued lattices*, 2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 5 pages. DOI: 10.1109/FUZZ-IEEE.2017.8015376  
<http://ieeexplore.ieee.org/document/8015376/>
- [173] P. Eklund, J. Gutiérrez García, U. Höhle, J. Kortelainen, *Non-commutativity and many-valuedness: The topological representation of the spectrum of  $C^*$ -algebras*, 2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), 4 pages. DOI: 10.1109/FUZZ-IEEE.2017.8015377  
<http://ieeexplore.ieee.org/document/8015377/>
- [174] P. Eklund, U. Höhle, J. Kortelainen, *Modules in health classifications*, 2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE), Naples, 2017, pp. 1-6. DOI: 10.1109/FUZZ-IEEE.2017.8015430  
<http://ieeexplore.ieee.org/document/8015430/>
- [175] C. F. Nourani, P. Eklund, *Concepts Ontology Algebras and Role Descriptions*, Position Papers of the 2017 Federated Conference on Computer Science and Information Systems (FedCSIS), AAIA, 25-32.
- [176] P. Eklund, M. Johansson, J. Kortelainen, V. Salminen, *The logic of DSM*, In: Understand, Innovate, and Manage your Complex System!,

Proceedings of the 19th International DSM Conference (Eds. K. Hölttä-Otto, T. R. Browning, S. D. Eppinger, L. Becerril), Espoo (Finland), 1113 September 2017, 25-31.  
[http://people.cs.umu.se/~peklund/publications/The\\_Logic\\_of\\_DSM.pdf](http://people.cs.umu.se/~peklund/publications/The_Logic_of_DSM.pdf)

- [177] P. Eklund, J. Kortelainen, *Two approaches to system-of-systems from lative logic point of view*, Proc. 6th International Young Scientists Conference in HPC and Simulation (13 November, 2017, Kotka, Finland), Procedia Computer Science **119** (2017), 1621.  
<https://www.sciencedirect.com/science/article/pii/S1877050917323657>
- [178] M. de Vries M, L. J. Seppälä, J. G. Daams, E. M. M. van de Glind, T. Masud, N. van der Velde; EUGMS Task and Finish Group on Fall-Risk-Increasing Drugs, *Fall-Risk-Increasing Drugs: A Systematic Review and Meta-Analysis: I. Cardiovascular Drugs.*, J Am Med Dir Assoc. 2018 Apr;19(4):371.e1-371.e9. doi: 10.1016/j.jamda.2017.12.013. Epub 2018 Feb 12.  
<https://www.ncbi.nlm.nih.gov/pubmed/29396189>
- [179] L. J. Seppälä, A. M. A. T. Wermelink, M. de Vries M, K. J. Ploegmakers, E. M. M. van de Glind, J. G. Daams, N. van der Velde; EUGMS Task and Finish Group on Fall-Risk-Increasing Drugs, *Fall-Risk-Increasing Drugs: A Systematic Review and Meta-Analysis: II. Psychotropics.*, J Am Med Dir Assoc. 2018 Apr;19(4):371.e11-371.e17. doi: 10.1016/j.jamda.2017.12.098.  
<https://www.ncbi.nlm.nih.gov/pubmed/29402652>
- [180] L. J. Seppälä, E. M. M. van de Glind, J. G. Daams, K. J. Ploegmakers, M. de Vries M, A. M. A. T. Wermelink, N. van der Velde; EUGMS Task and Finish Group on Fall-Risk-Increasing Drugs, *Fall-Risk-Increasing Drugs: A Systematic Review and Meta-Analysis: III. Others.*, J Am Med Dir Assoc. 2018 Apr;19(4):372.e1-372.e8. doi: 10.1016/j.jamda.2017.12.099. Epub 2018 Mar 2.  
<https://www.ncbi.nlm.nih.gov/pubmed/29402646>

- [181] K. Rutledge, N. Frände, F.J. Martín-Torres, R. Fonseca, J. Yu, P. Eklund, M. Virk, A. Ellman, P. Välisuo, T. Hellman, *WindCoE-Final-Report*, May, 2018.  
<http://nfwer.fouprojekt.novia.fi/wp-content/uploads/2018/05/WindCoE-Final-R>
- [182] V. Salminen, P. Sanerma, S. Niittymäki, P. Eklund, *Ontology based service environment supports successful aging*, In: J. Kantola, T. Barath, S. Nazir (Eds.), *Advances in Human Factors, Business Management and Leadership (AHFE 2017)*, *Advances in Intelligent Systems and Computing* **594**, Springer, 2018, 40-51.  
[https://link.springer.com/chapter/10.1007/978-3-319-60372-8\\_5](https://link.springer.com/chapter/10.1007/978-3-319-60372-8_5)
- [183] P. Eklund, M. Johansson, J. Kortelainen, *The logic of information and processes in system-of-systems applications*, *Soft Computing Applications for Group Decision-making and Consensus Modeling* (Eds. M. Collan and J. Kacprzyk), *Studies in Fuzziness* **357**, Springer, 2018, 89-102.  
[https://link.springer.com/chapter/10.1007/978-3-319-60207-3\\_6](https://link.springer.com/chapter/10.1007/978-3-319-60207-3_6)
- [184] P. Eklund, J. Gutiérrez García, U. Höhle, J. Kortelainen, *Semigroups in Complete Lattices: Quantales, Modules and Related Topics*, *Developments in Mathematics* **54**, Springer, 2018.  
<http://www.springer.com/gp/book/9783319789477>
- [185] P. Eklund, M.A. Galán, *Rough objects in monoidal closed categories*, In: *Algebraic Methods in General Rough Sets* (Eds. A. Mani, G. Cattaneo, I. Düntsch), *Trends in Mathematics Series*, Birkhäuser Mathematics, Springer, 2018, 641-655.  
<https://www.springerprofessional.de/en/rough-objects-in-monoidal-closed-cat>
- [186] M. Johansson, P. Eklund, J. Kortelainen, M. Winter, *The algebra, logic and topology of System-of-Systems*, *Proceedings of the 20th International Dependency and Structure Modeling (DSM) Conference, Trieste (Italy), 15-17 October 2018*, 2018, vol. 20, pp. 195-202.

- [187] J. Bousquet et al, and Mobile Airways Sentinel Network (MASK) Study Group, *MASK 2017: ARIA digitally-enabled, integrated, person-centred care for rhinitis and asthma multimorbidity using real-world-evidence* (Review), *Clin Transl Allergy* (2018) 8:45.  
<https://doi.org/10.1186/s13601-018-0227-6>  
<https://ctajournal.biomedcentral.com/track/pdf/10.1186/s13601-018-0227-6>
- [188] E. Menditto, et al, and the MASK Group, *Adherence to treatment in allergic rhinitis using mobile technology. The mask study.*, *Clin Exp Allergy* **49** (2019), 442–460  
<https://onlinelibrary.wiley.com/doi/full/10.1111/cea.13333>
- [189] L.J. Seppala, N. van der Velde, T. Masud, H. Blain, M. Petrovic, T. van der Cammen, K. Szczerbińska, S. Hartikainen, R.A. Kenny, J. Ryg, P. Eklund, E. Topinková, A. Mair, L. Laflamme, H. Thaler, G. Bahat, M. Gutiérrez-Valencia, M.A. Caballero-Mora, F. Landi, M. Emmelot-Vonk, *EuGMS Task and Finish group on fall-risk-increasing drugs (FRIDs): Position on Knowledge Dissemination, Management, and Future Research*, *Drugs & Aging* **36** (2019), 299-307 —(2019).  
<https://doi.org/10.1007/s40266-018-0622-7>  
<https://link.springer.com/article/10.1007%2Fs40266-018-0622-7>
- [190] J. Bousquet et al, and Mobile Airways Sentinel Network (MASK) Study Group, *Allergic Rhinitis and its Impact on Asthma (ARIA) Phase 4 (2018): Change management in allergic rhinitis and asthma multimorbidity using mobile technology*, *J Allergy Clin Immunol.* **143** (2019), 864–879.  
<https://www.sciencedirect.com/science/article/pii/S0091674918313599>
- [191] P. Eklund, J. Kortelainen, M. Winter, *Contact and influence between objects in a system-of-systems* (extended abstract), LINZ2019, 38th Linz Seminar on Fuzzy Set Theory, Linz, Austria, February 5-8, 2019.
- [192] P. Eklund, M. Löfstrand, *Uncertainty of value and structure*, EUSFLAT 2019, accepted.



- [193] C. De Cesare, P. Eklund, M. Illario, E. De Luca, R. Ruggiero, *Common assessment for multi-actors in active and healthy ageing*, submitted.
- [194] P. Eklund, M. Johansson, M. Löfstrand, *Many-valued and many-sorted structure relations*, DSM 2019, submitted.