Curriculum Vitae

Petr Cintula
Institute of Computer Science
Czech Academy of Sciences
Pod Vodárenskou věží 271/2
182 07 Prague 8, Czech Republic

Born: 13. 8. 1978

Homepage: http://www.cs.cas.cz/cintula
ORCID: 0000-0002-3617-1392
ResearcherID: E-5785-2012

Education and qualification

- Docent, Applied Mathematics, Czech Technical University in Prague, 1. 12. 2014
  Thesis title: *A General Framework for Mathematical Fuzzy Logic*
- Privatdozent, Computational Logic, Vienna University of Technology, 22. 5. 2013
  Thesis title: *Universal Methods in Mathematical Fuzzy Logic*
- PhD, Mathematical Engineering, Czech Technical University in Prague, 17. 2. 2005
  Thesis title: *From Fuzzy Logic to Fuzzy Mathematics*, Supervisor: Petr Hájek
- Masters (Ing.), Computer Science, Czech Technical University in Prague, 18. 6. 2001
  Thesis title: *The LΠ and LΠ$\frac{1}{2}$ Logics*, Supervisor: Petr Hájek

Employment history

2001–present	Institute of Computer Science, Czech Academy of Sciences, senior scientist (since 2013), director (2022–present), deputy director (2021–22), head of the department of TCS (2017–20)
2017	University of Cagliari, visiting researcher (July)
2013	University of Bern, visiting researcher (May–June)
2011–2012	Vienna University of Technology, visiting researcher (August–April)

Research interests

- Non-classical modal and predicate logics and reasoning with graded notions
- Mathematical fuzzy logic, substructural logics, and non-classical mathematics
- Abstract algebraic logic

Basic scientometric data

- 1 monograph, 48 journal papers, 4 book-chapters, and 18 papers in conference proceedings
- Citations: 950+ (Web of Science), 370+ (MathSciNet), 1200+ (Scopus), 3000+ (Google Scholar)
- H-index: 20 (Web of Science), 11 (MathSciNet), 21 (Scopus), 29 (Google Scholar)

Research stays (for a month or more)

- University of the Witwatersrand, Johannesburg, South Africa (January 2019, July 2016)
- University of Sydney, Sydney, Australia (October–November 2018)
- La Trobe University, Melbourne, Australia (February–March 2017)
- University of Cagliari, Cagliari, Italy (July 2017)
- Research Institute for Mathematical Sciences, Kyoto, Japan (November 2015)
- University of Bern, Bern, Switzerland (May–June 2013)
- Vienna University of Technology, Vienna, Austria (from August 2011 till April 2012)
- Slovak Technical University, Bratislava, Slovakia (January 2004, February 2003)
- Johannes Kepler University, Linz, Austria (March–April 2007, February 2005, 2004)

Awards

- Young researchers' award for outstanding achievements bestowed by the Czech Academy of Sciences, 2007
- Junior Scientist Award bestowed by the Learned Society of the Czech Republic, 2006
- Josef Hlávka award for young employees of the Czech Academy of Sciences, 2006
- 1st class award of the rector of the Czech Technical University for an outstanding PhD thesis, 2005
- Otto Wichterle award bestowed by the Academy of Sciences of the Czech Republic, 2005

Invited lectures (selection)

- *Towards a general theory of lattice-valued models,* model theory session at XVIII Latin American Symposium on Mathematical Logic, Chile, 2019
- *Lattice-valued predicate logics,* XIV Congreso Dr. Antonio Monteiro, Argentina, 2017
- *Logic and Implication,* XXII Conference on Applications of Logic in Philosophy and the Foundations of Mathematics, Poland 2017
- *Substructural Logics: A Logical Glimpse at Residuated Lattices*, The 91st Workshop on General Algebra, Czech Republic, 2016
- *Logics of graded predicates*, ManyVal 2015, Switzerland, 2015
- *First-order non-classical logics: an order-based approach*, Compositional Meaning in Logic, Austria, 2014
- *From (Deductive) Fuzzy Logic to (Logic-Based) Fuzzy Mathematics*, European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty, Italy, 2009
- *Fuzzy Class Theory: A State of the Art*, Linz Seminar on Fuzzy Set Theory, Austria, 2009

Grants (principal (co)-investigator)

- *Metamathematics of Substructural Modal Logics*, Czech Science Foundation GA22-01137S, 2022–2024
- *Reasoning with Graded Properties*, Czech Science Foundation GA18-00113S, 2018–2020
- *Predicate Graded Logics and their Applications to Computer Science*, Czech Science Foundation GA17-04630S, 2016–2019
- *Syntax Meets Semantics: Methods, Interactions, and Connections in Substructural logic*, 689176 of Horizon 2020 Marie Sk lodowska-Curie RISE, 2016–2018
- *Modelling Vague Quantifiers in Mathematical Fuzzy Logic*, joint project of Austrian Science Fund I1897-N25 and Czech Science Foundation GF15-34650L, 2015–2018
- *Center of Excellence–Institute for Theoretical Computer Science (CE-ITI)*, GBP202/12/ G061 of the Czech Science Foundation, 2012–2018
- *An Order-Based Approach to Non-Classical Propositional and Predicate Logics*, GA13-14654S of the Czech Science Foundation, 2013–2016
- *A Multivalued Approach to Optima and Equilibria in Economics*, GAP402/12/1309 of the Czech Science Foundation, 2012–2014
- *Mathematical Fuzzy Logic in Computer Science*, GAP202/10/1826 of the Czech Science Foundation, 2010–2014 (Principal investigator since 2013 only)
- *Logical Foundations of Semantics*, GD401/09/H007 of the Czech Science Foundation, 2009–2012
- *Dynamic Formal Systems*, IAA900090703 of the Grant Agency of the Academy of Sciences of the Czech Republic, 2007–2010
- *Formal Theories of Mathematical Structures with Vagueness*, KJB100300502 of the Grant Agency of the Academy of Sciences of the Czech Republic, 2005–2007

Academic supervision activity

- Postdoctoral researchers (formal supervision): A. Přenosil (2022–23, MEYS); J. Wannenburg (2021–22, MEYS); T. Moraschini (2018–19, MCSA.CZ); I. Sedlár and A. Vidal (2018–20, MCSA.CZ)
- Postdoctoral researchers working on my projects: K. Yamamoto and N. Ferenz (2022–), L. Reggio (2018–19), P. Baldi (2018), A. Vidal (2016–18), T. Moraschini (2016–18), I. Sedlár (2016–18), S. Bonzio (2017)
- PhD student: F. Jankovec (2022–present)
- Master students: P. Rusnok (2008), J. Kučera (2006), J. Hytka (2006)
- Bachelor student: P. Fejl (2017)
- Member of the board of PhD study programs: Mathematical Engineering (FNSPE Czech Technical Uni., 2010–present); Artificial Intelligence and Biocybernetics (FEE Czech Technical Uni., 2013–present); Computer Science (FS Palacký Uni., 2013–present); Discrete Models and Algorithms (FMP Charles Uni., 2016–present); Algebra, Theory of Numbers and Mathematical Logic (FMP Charles Uni., 2016–20); and Logic (FA, Charles Uni., 2017–present)

Teaching experience (semestral courses)

- *Mathematical Logic*, Czech Technical University, 2016/17–present
- *Foundations of Fuzzy Logic*, Czech Technical University, 2012/13, 2014/15
- *Fuzzy Logic*, Vienna University of Technology, 2011/12, 2013/14, 2015/16, 2017/18
- *Mathematical Fuzzy Logic*, Charles University, 2010/11, 2013/14
- *Applied Non-Classical Logics*, Czech Technical University, 2004/05–2006/07, 2008/09, 2013/14
- *General Theories of Logical Systems*, Charles University, 2005/06–2007/08, 2010/11, 2012/13

Tutorials (selection)

- *A Gentle Introduction to Abstract Algebraic Logic,* invited tutorial, PhDs in Logic, Germany, 2017
- *A Gentle Introduction to Mathematical Fuzzy Logic,* invited tutorial, European Summer School on Fuzzy Logic and Applications, Czech Republic, 2016
- *Tutorial on Mathematical Fuzzy Logic* (with C. Noguera), Isralog, Israel, 2014
- *A Gentle Introduction to Mathematical Fuzzy Logic* (with C. Noguera), European Summer School in Logic, Language and Information, Germany, 2014
- *Mathematical Fuzzy Logic: First-Order and Beyond*, invited tutorial, Workshop 'Information, Uncertainty, and Imprecision', Czech Republic, 2013
- *Abstract Algebraic Logic: Theory and Applications* (with C. Noguera), European Summer School in Logic, Language and Information, Poland, 2012

(Co-)chair of Program Committees

- *Beauty of Logic III*, Prague 2018
- *Non-Classical Modal and Predicate Logics*, Guangzhou 2017 and 2011
- *Linz Seminar*, Linz 2010
- *Non-Classical Mathematics*, Hejnice 2009

Member of Program Committees

- *Logic, Algebra and Truth Degrees*, Paestum 2022, Phalaborwa 2016, Vienna 2014, Kanazawa 2012, and Siena 2008
- *Linz Seminar*, Linz 2022
- *Non-Classical Modal and Predicate Logics*, Bochum 2021

- *Logica*, Hejnice 2013–2020
- *ManyVal*, Bucharest 2019 and Toulouse 2017
- *IEEE International Symposium on Multiple-Valued Logic*, Linz 2018 and Novi Sad 2017
- *Isralog*, Haifa 2017
- *Tbilisi Symposium on Language, Logic and Computation*, Tbilisi 2015
- *Topology, Algebra, and Categories in Logic*, Marseille 2011
- *EUSFLAT*, Milan 2013, Aix-Les-Bains 2011, and Lisbon 2009
- *Logical Models of Reasoning with Vague Information*, Čejkovice 2009

(Co-)chair of the organization committees of scientific meetings (selection)

- *TACL 2017*, Prague 2017
- *ManyVal 2013*, Prague 2013
- *Logic Algebra and Truth Degrees*, Prague 2010
- *Logical Models of Reasoning with Vague Information*, Čejkovice 2009

Editorial work

- Associate editor of *Archive for Mathematical Logic*, 2012–present
- Area Scientific Editor of the *Journal of Applied Logic*, 2014–present
- Area editor of *Fuzzy Sets and Systems*, 2015–2018
- Member of the editorial board of *Soft Computing*, 2012–2015
- *Handbook of Mathematical Fuzzy Logic, volume 3* (with C. Fermüller and C. Noguera), vol. 58 of Studies in Logic, Mathematical Logic and Foundations, College Publications, 384 pages, 2015
- *Handbook of Mathematical Fuzzy Logic, volumes 1 and 2* (with P. Hájek and C. Noguera), vol. 37 and 38 of Studies in Logic, Mathematical Logic and Foundations, College Publications, 492 and 480 pages, 2011
- *Understanding Vagueness. Logical, Philosophical and Linguistic Perspectives*, (with C. Fermüller, L. Godo, and P. Hájek), vol. 6 of Studies in Logic, College Publications, 432 pages, 2011
- *Witnessed Years: Essays in Honour of Petr Hájek*, (with Z. Haniková and V. Švejdar), vol. 37 of Tributes, College Publications, 416 pages, 2009
- Special issues of *Logic Journal of the IGPL* "Non-Classical Modal and Predicate Logics" (with R. Iemhoff and S. Ju), 22(3):411–513, 2014 and (with Z. Weber and S. Ju), 27(4):385–623, 2019
- Special issue of *Fuzzy Sets and Systems* "Linz Seminar 2010" (with E.P. Klement and L. Stout), 197:1–97, 2012
- Special issue of *Journal of Logic and Computation* "Mathematical Fuzzy Logic" (with G. Metcalfe and C. Noguera), 21(5):715–862, 2011
- Special issues of *Fuzzy Sets and Systems* "Formal Methods for Fuzzy Mathematics, Approximation and Reasoning, Parts I and II" (with L. Běhounek, V. Novák, and I. Perfilieva), 159(14):1727–1835, 2008 and 160(8):1003–1053, 2009

Additional professional activities

- Czech Society of Cybernetics and Informatics, member of the Scientific Council (2011–2023), member of the Council (2007–16), chair of the *Svoboda award* bestowed by the society (2010–16)
- IT4Innovations Centre of Excellence, member of the Research Council (2015–21)
- Institute of Theory of Information and Automation of CAS, member of the Supervisory Board (2009–19)
- Working group of Mathematical Fuzzy Logic (100+ members from 20+ countries), coordinator (2007–16)
- Institute of Computer Science of CAS, chair of the Board (2012–17), member of the Board (2007–12)

Publications — monograph

1) P. Cintula and C. Noguera. *Logic and Implication: An Introduction to the General Algebraic Study of Non-classical Logics*, volume 57 of *Trends in Logic*. Springer, 2021.

Publications — journal papers

48) G.Badia, L. Běhounek, P. Cintula and A. Tedder. Relevant Consequence Relations: An Invitation. *The Review of Symbolic Logic*, DOI: 10.1017/S1755020323000205, 2023.

47) P. Cintula, B. Grimau, C. Noguera and N.J.J. Smith. These degrees go to eleven: fuzzy logics and gradable predicates. *Synthese*, 200:445, 2022.

46) G. Badia, P. Cintula, P. Hájek, and A. Tedder. How much propositional logic suffices for Rosser's essential undecidability theorem? *The Review of Symbolic Logic*, 15(2):487–504, 2022.

45) P. Cintula and F. Paoli. Is multiset consequence trivial? *Synthese*, 199:741–765, 2021.

44) P. Baldi, P. Cintula, and C. Noguera. Classical and fuzzy two-layered modal logics for uncertainty: Translations and proof-theory. *International Journal of Computational Intelligence Systems*, 13:988–1001, 2020.

43) P. Cintula and D. Diaconescu. Omitting types theorem for fuzzy logics. *IEEE Transactions on Fuzzy Systems*, 27(2):273–277, 2019.

42) P. Cintula, D. Diaconescu, and G. Metcalfe. Herbrand theorems and Skolemization for lattice-valued logics. *Theoretical Computer Science*, 768:54–75, 2019.

41) P. Cintula, J. Gil Férez, T. Moraschini, and F. Paoli. An abstract approach to consequence relations. *The Review of Symbolic Logic*, 12(2):331–371, 2019.

40) P. Cintula, P. Menchón, and C. Noguera. Towards a general frame semantics for modal many-valued logics. *Soft Computing*, 23(7):2233–2241, 2019.

39) P. Cintula and C. Noguera. Implicational (semilinear) logics III: Completeness properties. *Archive for Mathematical Logic*, 57(3–4):391–420, 2018.

38) P. Cintula and C. Noguera. Neighborhood semantics for modal many-valued logics. *Fuzzy Sets and Systems*, 345:99–112, 2018.

37) L. Běhounek, P. Cintula, C. G. Fermüller, and T. Kroupa. Representing strategic games and their equilibria in many-valued logics. *Logic Journal of the Interest Group of Pure and Applied Logic*, 24(3):238–267, 2016.

36) P. Cintula. A note on axiomatizations of Pavelka-style complete fuzzy logics. *Fuzzy Sets and Systems*, 292:160–174, 2016.

35) P. Cintula and C. Noguera. Implicational (semilinear) logics II: Additional connectives and characterizations of semilinearity. *Archive for Mathematical Logic*, 53(3):353–372, 2016.

34) L. Běhounek, U. Bodenhofer, P. Cintula, S. Saminger-Platz, and P. Sarkoci. Graded dominance and related graded properties of fuzzy connectives. *Fuzzy Sets and Systems*, 262, 2015.

33) P. Cintula and C. Noguera. A Henkin-style proof of completeness for first-order algebraizable logics. *Journal of Symbolic Logic*, 80(1):341–358, 2015.

32) P. Cintula and C. Noguera. A note on natural extensions in abstract algebraic logic. *Studia Logica*, 103(4):815–823, 2015.

31) P. Cintula, R. Horčík, and C. Noguera. Non-associative substructural logics and their semilinear extensions: Axiomatization and completeness properties. *The Review of Symbolic Logic*, 6(3):394–423, 2013.

30) P. Cintula and T. Kroupa. Simple games in Lukasiewicz calculus and their cores. *Kybernetika*, 49(3):404–419, 2013.

29) P. Cintula and C. Noguera. The proof by cases property and its variants in structural consequence relations. *Studia Logica*, 101(4):713–747, 2013.

28) K. Chvalovský and P. Cintula. Note on deduction theorems in contraction-free logics. *Mathematical Logic Quarterly*, 58(3):236–343, 2012.

27) P. Cintula and P. Hájek. Triangular norm predicate fuzzy logics. *Fuzzy Sets and Systems*, 161(3):311–346, 2010.

26) P. Cintula, E. P. Klement, R. Mesiar, and M. Navara. Fuzzy logics with an additional involutive negation. *Fuzzy Sets and Systems*, 161(3):390–411, 2010.

25) P. Cintula and G. Metcalfe. Admissible rules in the implication–negation fragment of intuitionistic logic. *Annals of Pure and Applied Logic*, 162(2):162–171, 2010.

24) P. Cintula and C. Noguera. Implicational (semilinear) logics I: Basic notions and hierarchy. *Archive for Mathematical Logic*, 49(4):417–446, 2010.

23) P. Cintula, F. Esteva, J. Gispert, L. Godo, F. Montagna, and C. Noguera. Distinguished algebraic semantics for t-norm based fuzzy logics: Methods and algebraic equivalencies. *Annals of Pure and Applied Logic*, 160(1):53–81, 2009.

22) P. Cintula and P. Hájek. Complexity issues in axiomatic extensions of Lukasiewicz logic. *Journal of Logic and Computation*, 19(2):245–260, 2009.

21) P. Cintula and G. Metcalfe. Structural completeness in fuzzy logics. *Notre Dame Journal of Formal Logic*, 50(2):153–183, 2009.

20) L. Běhounek, U. Bodenhofer, and P. Cintula. Relations in Fuzzy Class Theory: Initial steps. *Fuzzy Sets and Systems*, 159(14):1729–1772, 2008.

19) S.-M. Wang and P. Cintula. Logics with disjunction and proof by cases. *Archive for Mathematical Logic*, 47(5):435–446, 2008.

18) P. Cintula, P. Hájek, and R. Horčík. Formal systems of fuzzy logic and their fragments. *Annals of Pure and Applied Logic*, 150(1–3):40–65, 2007.

17) P. Cintula and G. Metcalfe. Normal forms for fuzzy logics: A proof-theoretic approach. *Archive for Mathematical Logic*, 46(5–6):347–363, 2007.

16) L. Běhounek and P. Cintula. From fuzzy logic to fuzzy mathematics: A methodological manifesto. *Fuzzy Sets and Systems*, 157(5):642–646, 2006.

15) L. Běhounek and P. Cintula. Fuzzy logics as the logics of chains. *Fuzzy Sets and Systems*, 157(5):604–610, 2006.

14) P. Cintula. Weakly implicative (fuzzy) logics I: Basic properties. *Archive for Mathematical Logic*, 45(6):673–704, 2006.

13) P. Cintula, E. P. Klement, R. Mesiar, and M. Navara. Residuated logics based on strict triangular norms with an involutive negation. *Mathematical Logic Quarterly*, 52(3):269–282, 2006.

12) P. Hájek and P. Cintula. On theories and models in fuzzy predicate logics. *Journal of Symbolic Logic*, 71(3):863–880, 2006.

11) L. Běhounek and P. Cintula. Fuzzy class theory. *Fuzzy Sets and Systems*, 154(1):34–55, 2005.

10) P. Cintula. A note to the definition of the LΠ-algebras. *Soft Computing*, 9(8):575–578, 2005.

9) P. Cintula. Short note: On the redundancy of axiom (A3) in BL and MTL. *Soft Computing*, 9(12):942–942, 2005.

8) P. Cintula. Two notions of compactness in Gödel logics. *Studia Logica*, 81(1):99–123, 2005.

7) P. Cintula and B. Gerla. Semi-normal forms and functional representation of product fuzzy logic. *Fuzzy Sets and Systems*, 143(1):89–110, 2004.

6) P. Cintula and M. Navara. Compactness of fuzzy logics. *Fuzzy Sets and Systems*, 143(1):59–73, 2004.

5) R. Horčík and P. Cintula. Product Lukasiewicz logic. *Archive for Mathematical Logic*, 43(4):477–503, 2004.

4) P. Cintula. Advances in the LΠ and LΠ$\frac{1}{2}$ logics. *Archive for Mathematical Logic*, 42(5):449–468, 2003.

3) P. Cintula. About axiomatic systems of product fuzzy logic. *Soft Computing*, 5(3):243–244, 2001.

2) P. Cintula. An alternative approach to the LΠ logic. *Neural Network World*, 11(6):561–572, 2001.

1) P. Cintula. The LΠ and LΠ$\frac{1}{2}$ propositional and predicate logics. *Fuzzy Sets and Systems*, 124(3):289–302, 2001.

Publications — chapters is books

4) P. Cintula, R. Horčík, and C. Noguera. The quest for the basic fuzzy logic. In F. Montagna, editor, *Petr Hájek on Mathematical Fuzzy Logic*, volume 6 of *Outstanding Contributions to Logic*, pages 245–290. Springer, 2015.

3) L. Běhounek, P. Cintula, and P. Hájek. Introduction to mathematical fuzzy logic. In P. Cintula, P. Hájek, and C. Noguera, editors, *Handbook of Mathematical Fuzzy Logic - Volume 1*, volume 37 of *Studies in Logic, Mathematical Logic and Foundations*, pages 1–101. College Publications, London, 2011.

2) P. Cintula and C. Noguera. A general framework for mathematical fuzzy logic. In P. Cintula, P. Hájek, and C. Noguera, editors, *Handbook of Mathematical Fuzzy Logic - Volume 1*, volume 37 of *Studies in Logic, Mathematical Logic and Foundations*, pages 103–207. College Publications, London, 2011.

1) P. Cintula and O. Majer. Towards evaluation games for fuzzy logics. In O. Majer, A.-V. Pietarinen, and T. Tulenheimo, editors, *Games: Unifying Logic, Language, and Philosophy*, volume 15 of *Logic, Epistemology, and the Unity of Science*, pages 117–138. Springer, 2009.

Publications — conference proceedings papers

18) P. Cintula, G. Metcalfe and N. Tokuda. Algebraic semantics for one-variable lattice-valued logics. In D. Fernández-Duque, A. Palmigiano, S. Pinchinat, editors, *Proceedings of AiML 2022*, vol. 14 of Advances in Modal Logic, pages 237–257. College Publications, 2022.

17) P. Baldi, P. Cintula, and C. Noguera. Translating classical probability logics into modal fuzzy logics. In *2019 Conference of the International Fuzzy Systems Association and the European Society for Fuzzy Logic and Technology (EUSFLAT 2019)*. Atlantis Press, 2019.

16) M. Bílková, P. Cintula, and T. Lávička. Lindenbaum and pair extension lemma in infinitary logics. In L. Moss, R. J. de Queiroz, and M. Martinez, editors, *Logic, Language, Information, and Computation - WoLLIC 2018*, volume 10944 of *Lecture Notes in Computer Science*, pages 134–144. Springer, 2018.

15) P. Cintula, C. Noguera, and N. J. Smith. A logical framework for graded predicates. In A. Baltag, J. Seligman, and T. Yamada, editors, *Logic, Rationality, and Interaction - 6th International Workshop, LORI 2017*, volume 10455 of *Lecture Notes in Computer Science*, pages 3–16. Springer, 2017.

14) P. Cintula, C. Noguera, and J. Rogger. From Kripke to neighborhood semantics for modal fuzzy logics. In J. P. Carvalho, M.-J. Lesot, U. Kaymak, S. Vieira, B. Bouchon-Meunier, and R. R. Yager, editors, *Information Processing and Management of Uncertainty in Knowledge-Based Systems, Part II*, volume 611 of *Communications in Computer and Information Science*, pages 95–107. Springer, 2016.

13) P. Cintula, D. Diaconecsu, and G. Metcalfe. Skolemization for substructural logics. In M. Davis, A. Fehnker, A. McIver, and A. Voronkov, editors, *Proceedings of LPAR-20*, Lecture Notes in Computer Science, pages 1–15. Springer, 2015.

12) P. Cintula and C. Noguera. Modal logics of uncertainty with two-layer syntax: A general completeness theorem. In U. Kohlenbach, P. Barceló, and R. J. de Queiroz, editors, *Logic, Language, Information, and Computation - WoLLIC 2014*, volume 8652 of *Lecture Notes in Computer Science*, pages 124–136. Springer, 2014.

11) P. Cintula and G. Metcalfe. Herbrand theorems for substructural logics. In K. L. McMillan, A. Middeldorp, and A. Voronkov, editors, *Proceedings of LPAR-19*, volume 8312 of *Lecture Notes in Computer Science*, pages 584–600. Springer, 2013.

10) M. Víta and P. Cintula. Filters in algebras of fuzzy logics. In S. Galichet, J. Montero, and G. Mauris, editors, *Proceedings of EUSFLAT 2011*, pages 169–174. Atlantis Press, 2011.

9) L. Běhounek, U. Bodenhofer, P. Cintula, S. Saminger-Platz, and P. Sarkoci. On a graded notion of t-norm and dominance. In *Proceedings of the ISMVL 2010*, pages 73–76. IEEE Computer Society, 2010.

8) P. Cintula and C. Noguera. An abstract approach to fuzzy logics: Implicational semilinear logics. In J. P. Carvalho, D. Dubois, U. Kaymak, and J. M. da Costa Sousa, editors, *Proceedings of the Joint IFSA 2009 and EUSFLAT 2009 Conference*, pages 519–524, 2009.

7) L. Běhounek, U. Bodenhofer, and P. Cintula. Valverde-style representation results in a graded framework. In M. Štěpnička, V. Novák, and U. Bodenhofer, editors, *New Dimensions in Fuzzy Logic and Related Technologies: Proceedings of EUSFLAT 2007*, volume I, pages 153–160. University of Ostrava, 2007.

6) L. Běhounek and P. Cintula. Features of mathematical theories in formal fuzzy logic. In P. Melin, O. Castillo, L. T. Aguilar, J. Kacprzyk, and W. Pedrycz, editors, *Foundations of Fuzzy Logic and Soft Computing: Proceedings of IFSA 2007*, volume 4529 of *Lecture Notes in Artificial Intelligence*, pages 523–532. Springer, 2007.

5) P. Cintula and R. Horčík. Fuzzy Class Theory: Some advanced topics. In M. Štěpnička, V. Novák, and U. Bodenhofer, editors, *New Dimensions in Fuzzy Logic and Related Technologies: Proceedings of EUSFLAT 2007*, volume I, pages 137–144. University of Ostrava, 2007.

4) L. Běhounek and P. Cintula. Fuzzy class theory as foundations for fuzzy mathematics. In Y. Liu, M. Ying, and G. Chen, editors, *Fuzzy Logic, Soft Computing and Computational Intelligence: Proceedings of IFSA 2005*, volume 2, pages 1233–1238. Tsinghua University Press/Springer, 2005.

3) L. Běhounek and P. Cintula. General logical formalism for fuzzy mathematics: Methodology and apparatus. In Y. Liu, M. Ying, and G. Chen, editors, *Fuzzy Logic, Soft Computing and Computational Intelligence: Proceedings of IFSA 2005*, volume 2, pages 1227–1232. Tsinghua University Press/Springer, 2005.

2) P. Cintula. Basics of a formal theory of fuzzy partitions. In E. Montseny and P. Sobrevilla, editors, *Proceedings of the Joint EUSFLAT 2005 and LFA 2005 Conference*, pages 884–888. Universidad Polytecnica de Catalunya, 2005.

1) R. Horčík and P. Cintula. Extension of Lukasiewicz logic by product connective. In T. Bilgiç, B. D. Baets, and O. Kaynak, editors, *Fuzzy Sets and Systems: Proceedings of IFSA 2003*, volume 2715 of *Lecture Notes in Computer Science*, pages 180–188. Springer, 2003.