

Curriculum Vitae

Amanda Vidal Wandelmer

MCSA-IF Postdoctoral Fellow at the Artificial Intelligence Research Institute of the

Spanish National Research Council (IIIA - CSIC)

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Education

- *PhD in Pure and Applied Logic*, Artificial Intelligence Research Institute (IIIA - CSIC) and Universitat de Barcelona (Spain) (9.2015)
Thesis title: *On modal expansions of t-norm based logics with rational constants*
Supervisors: *Profs. L.Godo, F.Esteva and Dr. F.Bou*
*Excellent cum Laude, European Mention
- *M.Sc. in Pure and Applied Logic*, University of Barcelona, (7.2012)
- *B.Sc. Degree in Mathematics*, Universidad Autónoma de Madrid (Spain), (7.2010)
- *Eng. Degree in Computer Science*, Universidad Autónoma de Madrid (Spain), (7.2010)
- *B. in Music*, Conservatorio Profesional de Música Amanuel, Madrid (Spain), (7.2007)

Experience

- 10.2021–ongoing MCSA - IF Postdoctoral Fellow with the project ClaVa, No. 101027914, at the Artificial Intelligence Research Institute (IIIA - CSIC). Supervisor: Felip Manyà.
- 01.2021–07.2021 Contracted technician in the project "nanoMOOCs" at the IIIA - CSIC. PI: Miquel Oliver.
- 5.2020–11.2020 Contracted postdoctoral researcher in the project "RASO: Razonamiento, Satisfaccion y Optimizacion" at the IIIA - CSIC. PI: L. Godo.
- 5.2018–4.2020 Postdoctoral fellow at the Institute of Computer Science of the Czech Academy of Sciences (ICS - CAS), within the project "MFLtiCS: Mathematical Fuzzy Logic takes in constraint Satisfaction." **PI. Amanda Vidal.** (Cofunded by the EU)
- 5.2016–4.2018 Postdoctoral fellow at the ICS-CAS, within the project "Modal Many-valued logics.Theory and Applications." **PI. Amanda Vidal**
- 11.2015–05.2016 Contracted researcher in the project "LOGAL: Logica y Algoritmos" at the IIIA - CSIC. PI: P.Meseguer.
- 11.2014–05.2015 Contracted researcher in the project "GEAR: Strategic Management of High Performance Sales Teams" at the IIIA - CSIC. PI: C. Sierra.
- 10.2012–09.2015 Doctoral fellow at the IIIA - CSIC and the University of Barcelona.

Indexed Publications

Journal papers

- 2022 A. Vidal. *Undecidability and non-axiomatizability of Modal Many-Valued Logics.* The Journal of Symbolic Logic. 87(4), 1576-1605 (2022)
- 2022 C.M. Li, F. Manyà, J.R. Soler, A. Vidal. *Clausal Forms in MaxSAT and MinSAT.* International Journal of Computational Intelligence Systems, 15(1), 97 (2022).
- 2021 R. Rodriguez, A. Vidal. *Axiomatization of Crisp Gödel Modal Logic.* Studia Logica. Vol. 109, pp. 367–395 (2021)
- 2021 A. Vidal. *On Trisitive modal many-valued logics.* Fuzzy Sets and Systems. Vol. 407, pp. 97-114 (2021)
- 2020 A. Vidal, F. Esteva, L. Godo. *Axiomatizing logics of fuzzy preferences using graded modalities.* Fuzzy Sets and Systems, Vol. 401, No. 15, pp 163-188. (2020).
- 2019 P. Dellunde, A. Vidal. *Truth-Preservation under Fuzzy pp-Formulas.* International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems, Vol. 27, No. Suppl. 1, pp.89-105. (2019)

- 2018 M. Bofill, F. Manyà, A. Vidal, M. Villaret. *New Complexity Results for Lukasiewicz Logic*. Soft Computing, Vol 23, Issue 7, pp 2187–2197. (2018)
- 2017 A. Vidal, F. Bou, F. Esteva and L. Godo. *On strong standard completeness in some MTL_{Δ} expansions*. Soft Computing, Vol. 21 (1): pp. 125–147. (2017)
- 2017 A. Vidal, F. Esteva and L. Godo. *On modal extensions of product fuzzy logic*. Journal of Logic and Computation (JLC), Vol. 27 (1): pp. 299–336. (2017)
- 2016 A. Vidal. *MNiBLoS: A SMT-based solver for continuous t-norm based logics and some of their modal expansions*. Information Sciences, Vol. 372: pp. 709–730. (2016)

Book chapters

F. Esteva and L. Godo, A. Vidal. *A modal account of preference in a fuzzy setting*. Chapter in Soft Computing Based Optimization and Decision models. STUDFUZZ, Vol. 30, pp. 241–260. (2018)

Conference proceedings publications

- 2021 C. M. Li, F. Manyà, J.R. Soler, A. Vidal. *From Non-Clausal to Clausal MinSAT*. In proceedings of CCIA2021. Frontiers in Artificial Intelligence and Applications, Vol 339, pp. 27–36 (2021)
- 2021 P. Dellunde, L. Godo, A. Vidal. *On Probabilistic Logical Argumentation*. In proceedings of CCIA2021. Frontiers in Artificial Intelligence and Applications, Vol 339, pp. 7–16 (2021)
- 2021 P. Dellunde, L. Godo, A. Vidal. *Probabilistic Argumentation: An Approach Based on Conditional Probability –A Preliminary Report–*. In proceedings of JELIA2021. LNCS, Vol 12678, pp. 25–32 (2021)
- 2020 C.M. Li, F. Manyà, A. Vidal. *Tableaux for Maximum Satisfiability in Lukasiewicz Logic*. Proceedings of The IEEE 50th ISMVL 2020, International Symposium on Multiple-Valued Logic. pp. 243–248 (2020)
- 2017 R. Horcik, T. Moraschini, A. Vidal. *An Algebraic Approach to Valued Constraint Satisfaction*. In proceedings of Computer Science in Logic (CSL). LIPIcs, Vol. 82, pp. 42:1 – 42:20. (2017)
- 2017 A. Vidal, F. Esteva and L. Godo. *On finite-valued bimodal logics with an application to reasoning about preferences*. In proceedings of EUSFLAT2017. Advances in Fuzzy Logic and Technology 2017, pp. 505–517. (2017)
- 2015 M. Bofill, F. Manyà, A. Vidal and M. Villaret. *The Complexity of 3-Valued Lukasiewicz Rules*. In Proceedings of the 12th MDAI 2015 conference, Skövde (Sweden). LN CS Springer, Vol. 9321 pp. 221–229. (2015)
- 2015 A. Vidal, F. Esteva and L. Godo. *On Strongly Standard Complete Fuzzy Logics: MTL_{*}^Q and its expansions*. In Proceedings of the 9th IFSA-EUSFLAT 2015 conference, Gijón (Spain). pp. 828–835. (2015)
- 2015 M. Bofill, F. Manyà, A. Vidal and M. Villaret. *Finding Hard Instances of Satisfiability in Lukasiewicz Logics*. In Proceedings of the 45th IEEE ISMVL 2015, Waterloo (Canada). IEEE CS Press, pp. 30–35. (2015)
- 2014 A. Vidal, F. Esteva and L. Godo. *About standard completeness of Product logic*. In proceedings of the XVII ESTYLF 2014 conference, Zaragoza (Spain). F. Bobillo et al. (eds.), pp. 423–428. (2015)
- 2012 A. Vidal, F. Bou and L. Godo. *An SMT-based solver for continuous t-norm based logics*. In Proceedings of SUM 2012 conference, Marburg (Germany). LN AI, E. Hüllermeier et al. (eds.), Vol. 7520, Springer-Verlag, pp. 633–640. (2015)

Conferences & Workshops

- **Highlights:** Invited Speaker at [LATD 2023](#); Invited Speaker at [DaLi 2023](#); Invited Speaker at [PhDs in Logic 2023](#);
Invited Speaker at [TACL 2022](#); Invited Speaker at [Sysmics 2019](#); Invited Speaker at [BLAST 2019](#); Invited tutorialist at [PhDs in Logic 2019](#); Invited Speaker at [II Siena Algebra Week 2019](#); Invited speaker at special session in [Logic Colloquium 2018](#); Selected plenary speaker at [TACL 2015](#).
- **Participation and presentation at peer-reviewed conferences:** European Conference on Logics in Artificial Intelligence (JELIA) 2021; Logic, Algebra and Truth-Degrees (LATD) 2018, 2016, 2014; Topology, Algebra and Categories in Logic (TACL) 2019, 2017, 2015; Logic Colloquium C2018; Algebra and

Substructural Logics 2018; Computer Science Logic (CSL) 2017; ManyVal 2017, 2015, 2013 ; IEEE International Symposium on Multiple-Valued Logics (ISMVL) 2015; Modeling Decisions for Artificial Intelligence (MDAI) 2015; 35th Linz Seminar on Fuzzy Set Theory, 2014; IFSA-EUSFLAT conference 2015, 2017; Scalable Uncertainty Management (SUM) 2012;

Prizes and awards

- 09.2017 **Best 2015 PhD Thesis Award**, by the European Society for Fuzzy Logic and Tecnology (EUSFLAT).
- 09.2010–09.2014 PhD scholarship **JAЕ-Predoc. IIIA - CSIC**,
- 07–09.2009 Introduction to research grant **JAЕ-Intro. IIIA - CSIC**,
- 03–05.2008 Excellent academic progress award, Autonomous Community of Madrid. *Escuela Politécnica Superior, UAM*.

Teaching

- Designer and teacher of one third of the Course "Logic for Computer Scientists" at the Master in Mathematical Informatics from the Czech Technical University in Prague (summer semester, 2017).

Research stajs

- University of Oxford (S. Zivny), IIIA-CSIC in Barcelona (P. Dellude), University of Buenos Aires (R. Rodriguez), Utrecht University (M. Dastani), University of Bahia Blanca (C. Chesñevar) and CIFASIS-CONICET (A. Casali) in Rosario , University of Milano (S. Aguzzoli).

Developed software

- **mNiBLoS**: Recodification and extension of NiBLoS with modal operators -over finite Kripke structures-
- **LeibClassifier**(In collaboration with T.Moraschini): Library for the Universal Algebra Calculator uacalc.org/ with some abstract algebraic logic tools (classification of strongly finite logics within the Leibniz hierarchy),
- **NiBLoS Solver** for automatic reasoning (theoremhood and deduction proving and model generation) over continuous t-norm based fuzzy logics, based on SMT (2012, Master thesis project).

Additional professional activities

- Member of the organizing committees of Topology, Algebra and Categories in Logic (TACL) 2024, the Workshop on admissible rules and unification (WARU) 2019, Beauty of logic 2018, TACL 2017 (+150pp). Volunteer in the organization of IJCAI 2011.
- Member of the Program Committee of TACL2024.
- Reviewer for Studia Logica, Fuzzy Sets and Systems, International Journal of Approximate Reasoning, The Australasian Journal of Logic, Archive for Mathematical Logic, Soft Computing, Logic Journal of the IGPL and others, and conferences of the field (IJCAI, IPMU, ISMVL, FUZZ-IEEE).

Other skills

- **Programming Languages**: C, C++, Java & JavaScript, Python, Perl, SQL, XML, Lisp, Prolog
- **Scientific tools**: Matlab, Octave, Latex
- **Languages**: Spanish (native), English (fluent), Italian (fluent), Catalan (intermediate), French (intermediate)

Participation in Research Projects

- *Clava: Clausal forms for Vague information processing*. Postdoctoral Marie Skłodowska-Curie Individual Fellowship, Grant agreement No. 101027914. Supervisor: F. Manyà. 2-year full employment at the Artificial Intelligence Research Institute(IIIA- CSIC), funded by the European Union under the programme H2020. 10.2021-present.
- *NanoMOOCs: Nou format audiovisual amb funcionalitats tecnològiques avançades per a l'aprenentatge*. RIS3CAT project No.COMRDI18-1-0010. 6-months full time contracted technician at IIIA - CSIC. PI: Miquel Oliver, Local PI: Jordi Sabater. Funded by the Generalitat de Catalunya.
- *RASO: Razonamiento, Satisfaccion y Optimizacion*. TIN2015-71799-C2-1-P National project. 6 month full time postdoctoral position at the IIIA - CSIC. PI: L. Godo. Funded by the Spanish Ministerio de Economía y Competitividad.

- *MFLtiCS: Mathematical Fuzzy Logic takes in constraint Satisfaction*. Enhancing human resources in theoretical computer science: CZ.02.2.69/0.0/0.0/17_050/0008361. **Principal Investigator, 2-year full time postdoctoral fellowship** Funded by the Operational Programme Research, Development and Education of the Czech Republic and co-funded by the EU under the programme H2020
- *Predicate graded logics and their applications to computer sciences*. GA17 – 0S of the Czech Science foundation,
- *SYSMICS*. 689176 of Horizon 2020 Marie Skłodowska-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
- *Modal Many-valued logics. Theory and Applications*. PPLZ L100301601, Program podpory perspektivních lidských zdrojů. **Principal Investigator, 2-year full time postdoctoral fellowship** Funded by the Institute of Computer Science of the Czech Academy of Sciences.
- *LOGALG: Logica y Algoritmos, CSIC*. Intramural - CSIC project 201450E045, at the IIIA - CSIC. (2015-2016)
- *GEAR: Strategic Management of High Performance Sales Teams*. ref.201350E112, IIIA - CSIC, 2014-2015.
- *EDETRI: Study and development of technologies for the efficient resolution of reasoning problems with incomplete information*, Ministry of Education of Spain, TIN2012-39348-C02-01, 2013-2016.
- *AT: Agreement Technologies*. COST ACTION IC0801, IIIA - CSIC, 2012-2015.