

Valeria de Paiva

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Profile: Mathematician with strong industrial and academic background, and over 100 publications. Project leader with a rare ability to get people from different technical backgrounds communicating and working together.

Education

- 1990 **PhD, Pure Mathematics**, *University of Cambridge*, Cambridge, UK.
Thesis: The Dialectica Categories, supervisor: Prof M. J. E. Hyland
- 1985 **Part III Mathematical Tripos (MSc)**, *University of Cambridge*, Cambridge, UK.
Lucy Cavendish College
- 1984 **MSc, Algebra**, *Pontifical Catholic University (PUC)*, Rio de Janeiro, Brazil.
Thesis: The Hurwitz-Radon Transformations, supervisor: Dr D. Randall
- 1982 **BSc, Pure Mathematics**, *Pontifical Catholic University (PUC)*, Rio de Janeiro, Brazil.

Work Experience

- Jan **Principal Research Scientist**, *Topos Institute*, Berkeley, CA.
- 2021–now Research, design and deployment of applied category theory systems, related to semantics of programming languages (Dialectica categories), natural language inference (GKR-like) systems and knowledge extraction from mathematical texts.
- Mar **Principal Research Scientist**, *Samsung Research America*, Mountain View, CA.
- 2019–Jan Research, design and deployment of conversational systems, related to smart devices in the connected home. I also served as a connection to the academic community.
- 2020
- Sep **Senior Research Scientist**, *Nuance Communications*, Sunnyvale, CA.
- 2012–Dec Research, design and deployment of conversational systems. My first project was on a "living room" assistant such as Amazon's Alexa. The most recent project was on a car concierge. In 2018 the NAIL lab I am the bridge between the Natural Language processing (NLP) experts and the knowledge representation (KR) experts.
- April **Senior Research Scientist**, *Rearden Commerce*, Foster City, CA.
- 2011–2012 Design and deployment of sentiment analysis tools.
- Sentiment analysis mechanisms, especially geared towards to reviews of hotels, using logical knowledge representation and ontologies, as well as statistical natural language processing modules.
- May **Search Analyst**, *Cuil, Inc.*, Menlo Park, CA.
- 2008–2010 Design and deployment of mechanisms for testing quality of search results.
- Effectively coordinated team of ranking, data mining and front-end engineers to achieve quality testing tasks.
 - Pre-screening of results when new data or algorithms are released.
 - User champion working across teams and boundaries to reach quality goals.

- Oct **Research Scientist**, *Palo Alto Research Center (PARC)*, Palo Alto, CA.
- 2000–2008 Work on Logics for Natural Language Semantics, Knowledge representation systems, Evaluation of Semantic systems.
- Logics of context for AI and other applications, for ARDA/DTO projects NIMD (Novel Intelligence from Massive Data, DARPA sponsored research) and IKRIS (Interoperable Knowledge Representation for Intelligence Support)
 - Ontology construction and formal models of ontology merging; mathematical models of context-based natural language and knowledge representation systems.
 - Construction, deployment and results analysis of test suites used for evaluation and regression testing for ARDA Bridge and Asker systems, mapping NL to KR.
- 1999–Oct **Visiting Scientist**, *Palo Alto Research Center (PARC)*, Palo Alto, CA.
- 2000 Work on Linear Logic proof methods for construction of semantic representations for Natural Language, Glue semantics.
- 1996–2000 **Assistant Professor**, *University of Birmingham, School of Computer Science*, Birmingham, UK.
- Research on Linear Functional Programming, Linear Logic and Type Theory applications
- PI on EPSRC project xSLAM on explicit substitutions for linear functional programming.
 - Consultant to SRI International and UK Defence Research Agency on type systems for secure pointer analysis.
 - Teaching of undergraduates and graduate courses; PhD supervision.
- 1989–1996 **Research Associate**, *University of Cambridge, Computer Science Laboratory*, Cambridge, UK.
- Employed on various projects using formal tools:
- Verification of proof assistants
 - Lexical Semantics for natural language
 - Semantics of (functional) programming languages
- 1982–1990 **Assistant Professor**, *Pontifical University of Rio de Janeiro, Informatics*, Rio de Janeiro, Brazil.
- Full teaching and research position from 1989, on paid leave 1986–1988
- 1993–1996 **Consultant**, *SRI, Cambridge*, Cambridge, UK.
- Project with UK Defense Department (DRA, Malvern) on languages for pointer analysis

Honors and Awards

- 2020–now Assessor/Council Member of the Division of Logic and Methodology and Philosophy of Science and Technology
- 2019–now Member of Industry Advisory Board of the Natural Language Processing Masters' Program, the University of California, at Santa Cruz.
- 2017–now Member of ILLC (Institute for Logic, Language and Information, at the University of Amsterdam) Scientific Advisory Board, The Netherlands.
- 2009–now Steering Committee of NASSLLI (North American Summer School in Logic, Language, and Information)
- 2016–now Steering Committee of WoLLIC (Workshop on Language, Logic and Information) conferences.
- 2018–now Member of the Evaluators Panel of the Vienna Research Groups for Young Investigators in the field of Information and Communication Technology
- 2015–2016 Beth Prize Committee for PhDs in Logic, Language, and Information), FoLLI, The Netherlands.

- 1999–now Honorary Research Fellow at the School of Computer Science, University of Birmingham, UK
- 2015 Member of the evaluation team for the INRIA Theme Programs, Verification and Proofs, Paris, France.
- 2013–2015 Ciência sem Fronteiras Fellowship from CNPq, Brazilian Research Council.
- 2012–2016 Co-writer and proposer, GetFUN, Generalizing Truth-functionality, Marie Curie project PIRSES-GA-2012-318986 funded by EU-FP7 (January 1, 2013 - December 31, 2016)
- 2005–2006 Co-Principal Investigator, ARDA grant IKRIS: Interoperable Knowledge Representation for Intelligence Support, PARC, CA
- 1997–2000 Co-Principal Investigator, EPSRC grant xSLAM: The eXplicit Linear Abstract Machine, University of Birmingham, UK
- 1995 Co-writer, EPSRC grant proposal Authentication Logics: New Theory and Implementations, University of Cambridge, UK
- Thesis PhD committee thesis for Andrew Barber (Edinburgh), Jean Leneutre (Paris), Torben Braüner (Aarhus), Alexandre Rademaker (Rio de Janeiro), Yakoub Salhi (Nancy), Pierre Pradic (Lyon), Felipe Salvatore (São Paulo).
- Committees PhD informal advisor for Gavin Bierman (Cambridge), Maria Claudia Meré (Rio de Janeiro), Paola Maneggia (Birmingham).
- Outreach Founder of the Workshop Women in Logic, from 2016. Steering Committee of Women in Logic, since 2018. Facebook Wil and Blog WiL since 2015.
- co-Founder of the Topos Institute, 2021.
- President of the Award Committee of the First Dutch Logic Association Competition on Logic Theses, 2022.
- Member of the Scholarship Committee of the ACM-W, since 2015.
- Member of the SIGLOG conference committee, since 2015.
- Career Profile in the Mathematical Association of America (MAA) <http://www.maa.org/careers/career-profiles/academia-teaching/valeria-de-paiva>
- Math Awareness Month campaign of the American Mathematical Society http://www.mathaware.org/mam/2015/highlighted/MAM%202015%20profile_dePaiva.pdf.
- Wikipedia page 8 languages, https://en.wikipedia.org/wiki/Valeria_de_Paiva

Invited Talks

- since 2020 Recorded Talks in YouTube, see <https://vcvpaiva.github.io/RecordedTalks>.
- Nov, 2019 *Between a rock and a hard place: Structural and Distributional Meaning Representations*, Invited Talk at the Institute of Logic, Language and Computation (ILLC) of the University of Amsterdam, The Netherlands.
- Jul, 2019 *From Pure Algebra to Applied Category Theory: a personal journey*, Invited Talk at the First Brazilian Meeting of Women in Mathematics (*Encontro Brasileiro de Mulheres Matemáticas*) (EBMM), IMPA, Rio de Janeiro.
- Mar, 2019 *Going Without: a linear modality and its role*, Invited Talk at the Third Tübingen Conference on Proof-Theoretic Semantics, *Proof-Theoretic Semantics: Assessment and Future Perspectives*, Tübingen, Germany.
- Jan, 2019 *A Dialectical Model of Relevant Type Theory*, Invited Talk at the *Syntax Meets Semantics 2019* (SYSMICS 2019), Amsterdam, The Netherlands.

- Sep, 2018 *Bridging Trouble* Invited Talk at the AI Logic Summit, Luxembourg.
- Aug, 2018 *Dialectica categories: the relevant version* Invited Talk at the Logic satellite Meeting at ICM2018, Niteroi, Brazil.
- May, 2018 *A Critical Review of the SICK NLI Data Set* Talk at SynSem: From Form to Meaning – Integrating Linguistics and Computing Workshop, Oslo, Norway.
- Jun, 2017 *Weapons of Math Construction* Talk at LiCS (Logic in Computer Science) Mentoring Workshop, Reykjavik, Iceland.
- May, 2016 *Intuitionistic Modal Logic: a personal view* Talk at Staford Logic Seminar, Stanford, CA, USA.
- Sep, 2015 *Portuguese Linguistic Tools: What, Why and How.* Invited talk at IBM Research, 2015, Rio de Janeiro, Brazil.
- Aug, 2015 *Modal Type Theory* Invited talk at Logical and Semantic Frameworks with Applications (LSFA) 2015, Natal, Brazil.
- Jun, 2015 *Lean Logic for Lean Times: Varieties of Natural Logic* Invited talk at Conference on Computing Natural Reasoning (CoCoNat), Vloomington, Indiana, USA.
- May, 2015 *Lean Logic for Lean times: Entailment and Contradiction (ECD) Revisited* Invited talk at 4th CSLI Workshop on Logic, Rationality & Intelligent Interaction, Stanford, CA, USA.
- Mar, 2015 *Intuitionistic Modal Logic: 15 years later* Invited talk at Berkeley Logic Colloquium, Berkeley, CA, USA.
- May, 2014 *Edwardian Proofs for Futuristic Programs and Personal Assistants* Invited Plenary Talk at North American Annual Meeting of the Association for Symbolic Logic, Boulder, CO, USA.
- Jun, 2012 *Dialectica categories' surprising application – mapping cardinal invariants* Invited Talk at XV Latin American Symposium on Mathematical Logic (SLALM 2012), Bogotá, Colômbia.
- Mar, 2012 *Edwardian Proofs for Futuristic Programs,* Invited Plenary Talk at Infinite Possibilities Conference, IPC2012, Baltimore, Maryland.
- Jan, 2010 *A Bridge not too far,* Talk given at SRI AI Seminar, Menlo Park, CA. Based on my work at PARC.
- Jul, 2009 *Adventures in SearchLand,* Talk given at PARC Forum, Palo Alto, CA. Based on my experience moving out of a research lab into a start-up environment.
- Aug, 2006 *Constructive Hybrid Logics and Contexts,* Talk given at Hybrid Logic Workshop, Seattle, WA. Based on my experience using logics for contexts in Natural Language formalisms.

Editorial Boards

- from 2017 Steering Board of *Compositionality*, new interdisciplinary, open-source journal, <http://www.compositionality-journal.org/>.
- from 2002 Editorial Board of TAC, Theory and Applications of Categories, online journal.
- from 2004 Editorial Board of LMCS, Logical Methods in Computer Science, online journal.
- from 2006 Editorial Board of Logica Universalis, a journal from Birkhauser Basel, Springer.
- from 2015 Editorial Board of IfCoLog Journal of Logics and their Applications, College Publications.

2005–2012 Editorial Board of “Logic, Language and Information”, Lecture Notes in Artificial Intelligence, Springer.

Recent Program Committees

- since 2020 More than 40 (2020-21), 15 (2022), 7(2023) in EasyChair, more in START.
- 2019 NAACL-HLT 2019, The First International Workshop on Designing Meaning Representations DMR2019, IJCAI 2019
- 2018 *SEM 2018, ACL 2018, COLING 2018, EMNLP 2018, LREC 2018, SCIL 2018 (Society for Computation in Linguistics, UDW 18 (Second Workshop on Universal Dependencies)
- 2017 Mathematics of Language (MOL) 2017, 12th International Tbilisi Symposium on Language, Logic and Computation 2017, TABLEAUX 2017, DaLi – Dynamic Logic: new trends and applications 2017, SemDial 2017 (SaarDial). Also ACL 2017, EMNLP 2017, Commonsense-2017, 2nd International Workshop on Ontology Modularity, Contextuality, and Evolution (WOMoCoE 2017), and 12th Workshop on Logical and Semantic Frameworks, with Applications (LFSA2017.)
- 2016 Logic in Computer Science (LiCS) 2016, New York, NY, Advances in Modal Logic (AiML) 2016, Budapest, Hungary. LREC 2016, Language Technology Resources and Tools for Digital Humanities (LT for DH) 2016
- 2015 13th Conference on Typed Lambda Calculi and Applications (TLCA), Warsaw, Poland
- 2015 22nd International Workshop on Logic, Language, Information, and Computation (WoLLIC 2015), Bloomington, IN, USA, July 20-23, 2015 (PC chair)
- 2015 24th International Joint Conference on Artificial Intelligence (IJCAI), Buenos Aires, Argentina, July 25-31, 2015 (Senior Reviewer)
- 2014 Joint Logic in Computer Science (LiCS)–CSL(Computer Science Logic) 2014, as part of FLoC (Federated Logic Conference), Vienna, 2014
- 2013 CSL(Computer Science Logic) 2013
- 2012 North American Summer School in Logic, Language and Information (NASSLLI) 2012 (PC Chair)

I have also organized with colleagues, a collection of IMLA (Intuitionistic Modal Logic and Applications) workshops (latest in 2017) and a collection of NLCS (Natural Language and Computer Science) workshops (latest to happen in 2019), as well as several other meetings, such as a Dagstuhl Seminar on Linear Logic and Applications in 2000 and DannyFest, a celebration of Daniel G. Bobrow’s work in 2008.

Selected Publications

Books Inheritance, Defaults and the Lexicon. Eds. Ted Briscoe, Valeria de Paiva and Ann Copestake. Studies in Natural Language Processing, Cambridge University Press, 1993, re-issued 2006.

Advances in Natural Deduction: A Celebration of Dag Prawitz’s Work, Eds. Pereira, Haeusler and de Paiva, ISBN 978-94-007-7548-0, Springer, 2014.

From Quirky Case to Representing Space: Papers in Honor of Annie Zaenen. Eds. Tracy H. King and Valeria de Paiva, CSLI Publishing, 2013.

Perspectives on Semantic Representations for Textual Inference. Eds. Annie Zaenen, Cleo Condoravdi and Valeria de Paiva, Linguistics Issues in Language Technology – LiLT, vol 9, CSLI, 2013.

22nd Workshop on Logic, Language, Information and Computation (WOLLIC 2015) Selected Papers. Eds. V. de Paiva, R. de Queiroz, L. S. Moss, D. Leivant, A. G. de Oliveira, July 2015.

Edited Works

Special Issue of Journal of Applied Logics - IfCoLog Journal: Intuitionistic Modal Logic and Applications. Eds. V de Paiva and Sergei Artemov Journal of Applied Logics - IfCoLog Journal 8 (8)

Third Workshop on Natural Language and Computer Science (NLCS'15). Eds. Makoto Kanazawa, Lawrence Moss, Valeria de Paiva, Epics July 2015.

Intuitionistic Modal Logic and Applications (IMLA 2011) Selected Papers. Journal of Logic and Computation. Guest Editors Valeria de Paiva and Natasha Alechina, 2015.

Intuitionistic Modal Logic and Applications (IMLA 2008) Selected Papers. Information and Computation. Guest Editors Valeria de Paiva and Brigitte Pientka: 209(12): 1435-1436, 2011.

Joint Proceedings of the Second Workshop on Natural Language and Computer Science (NLCS'14) & 1st International Workshop on Natural Language Services for Reasoners (NLSR 2014). Affiliated to RTA-TLCA, VSL 2014 July 17-18, 2014. Eds. Valeria de Paiva, Walther Neuper, Pedro Quaresma, Christian Retoré, Lawrence S Moss, Jordi Saludes.

Intuitionistic Modal Logic and Applications (IMLA 2013) Selected Papers. Journal of Logic and Computation. Guest Editors Valeria de Paiva, Mario Benevides, Vivek Nigam, Elaine Pimentel, Electronic Notes in Theoretical Computer Science, vol 300, 2013.

Elementis of Categorical Logic (CatLog 2010) Selected Papers. Logica Universalis. Guest Editors Valeria de Paiva and Andrei Rodin 7, 2013.

Workshop on Logic, Language, Information and Computation (WOLLIC 2006) Selected Papers. Guest editors G. Mints, V. de Paiva and R. de Queiroz. Special Issue of Information and Computation, 2009.

Chu Spaces: Theory and Applications. Guest editors Valeria de Paiva and Vaughan Pratt, Special volume of Theory and Applications of Categories (TAC), Vol. 17, 2006.

Intuitionistic Modal Logic and Applications (IMLA) Selected Papers. Journal of Logic and Computation. Guest Editors Valeria de Paiva, Rajeev Goré and Michael Mendler, 2004.

Journal Papers

Curing the SICK and other NLI maladies. AL Kalouli, H Hu, AF Webb, LS Moss, V de Paiva. Computational Linguistics, 1-35, 2022.

Dialectica logical principles: not only rules. D Trotta, M Spadetto, V de Paiva Journal of Logic and Computation 32 (8), 1855-1875, 2022.

Applied Category Theory in Chemistry, Computing, and Social Networks. J Baez, S Cho, D Cicala, N Otter, V de Paiva Notices of the American Mathematical Society, 69 (2), 292–297, 2022.

An Ecumenical Notion of Entailment (with E. Pimentel and L.C. Pereira). Synthese 198 (Suppl 22), 5391-5413, 2021.

Dialectica categories, cardinalities of the continuum and combinatorics of ideals, (with Samuel G da Silva) in Logic Journal of the IGPL, 25:585–603, 2017.

Intuitionistic Modal Logic: A 15-year retrospective (with C. Stewart and N. Alechina). In Journal of Logic and Computation, Oxford University Press, 2015.

A linked open data architecture for the historical archives of the Getulio Vargas Foundation (with Alexandre Rademaker, Dário Augusto Borges Oliveira, Suemi Higuchi, Asla Medeiros e Sá, Moacyr Alvim). In International Journal on Digital Libraries, vol 15, issue 2–4, pages 153–167, Springer, 2015.

As Wordnets do Português (with Hugo Gonçalo Oliveira, Cláudia Freitas, Alexandre Rademaker, Livy Real, Alberto Simões). In Oslo Studies in Language, vol 7, issue 1, 2015.

Linear Logic Model of State Revisited. In Logic Journal of IGPL, vol 22, issue 5, pages 791-804, Oxford University Press, 2014.

Natural Number Objects in Dialectica Categories. In Electronic Notes in Theoretical Computer Science, vol 305, pages 53–65, Elsevier, 2014.

Intuitionistic N-graphs. In Logic Journal of IGPL, vol 22, issue 2, pages 274–285, Oxford University Press, 2014.

If, not when. (with Dick Crouch) In Electronic Notes in Theoretical Computer Science, vol 300, pages 3–20, Elsevier, 2014.

Categorical Semantics of Linear Logic for All. In Advances in Natural Deduction, (Eds Pereira, Hausler and de Paiva) pages 181-192, Springer, 2014.

Elements of Categorical Logic: Fifty Years Later. (with Andrei Rodin) In Logica Universalis, vol 7. issue 3, pages 265-273, Elsevier, 2013.

Bridges from Language to Logic: Concepts, Contexts and Ontologies. In Electr. Notes Theor. Comput. Sci. 269: 83-94, 2011.

Constructive Description Logics Hybrid-Style (with E. Hermann Haeusler and Alexandre Rademaker), in Electr. Notes Theor. Comput. Sci. 273: 21-31, 2011.

Basic constructive modality (with Eike Ritter), in Logic without Frontiers—Festschrift for Walter Alexandre Carnielli on the occasion of his 60th birthday. College Publications, 2011.

Deverbal Nouns in Knowledge Representation (with O. Gurevich, R. Crouch and T. H. King), in Journal of Logic and Computation, 18(3): 385–404, 2008.

An Institutional View on Categorical Logic (with Joseph A. Goguen, Till Mossakowski, Florian Rabe, and Lutz Schröder), in Int. J. Software and Informatics 1: 129-152, 2007.

Dialectica and Chu Constructions: Cousins?, in Theory and Applications of Categories (TAC), volume 17, 127–152, 2007.

Preface to the special volume *Chu spaces: theory and applications*, (with Vaughan Pratt) in Theory and Applications of Categories (TAC), volume 17, 1–9, 2006.

A Parigot-style linear λ -calculus for full intuitionistic linear logic (with Eike Ritter) in *Theory and Applications of Categories (TAC)*, volume 17, 30–48, 2006.

Intuitionistic Hybrid Logic (with T. Braüner), in *Journal of Applied Logic(JAL)*, volume 4, 231– 255, 2006.

Relating Categorical Semantics for Intuitionistic Linear Logic (with P. Maneggia and M. Maietti and E. Ritter), in *Applied Categorical Structures*, volume 13(1):1–36, 2005.

A short note on intuitionistic propositional logic with multiple conclusions (with Luiz Carlos Pereira), in *Manuscrito–Rev. Int. Fil* 28 (2), 317-329, 2005.

Modalities in constructive logics and type theories (with R. Goré, M. Mendler), in *Journal of Logic and Computation* 14 (4), 439-446, 2004.

Poset-valued sets or how to build models for linear logics (with A. Schalk), in *Theoretical Computer Science* 315 (1), 83-107, 2004.

Making ontologies work for resolving redundancies across documents (with John O Everett, Daniel G Bobrow, Reinhard Stolle, Richard Crouch, Cleo Condoravdi, Martin van den Berg, Livia Polanyi), In “*Communications of the ACM*”, volume 45, issue2, pages 55-60, 2002.

Lineales: Algebras and Categories in the Semantics of Linear Logic, In “*Words, Proofs and Diagrams*”, CSLI Publications, Stanford 2002.

On an intuitionistic modal logic (with Gavin Bierman, In *Studia Logica* 65 (3), 383-416, 2000.

Linear explicit substitutions (with Neil Ghani and Eike Ritter), In *Logic Journal of IGPL*, volume 8, isse 1, 7–31, 2000.

Computational Types from a Logical Perspective I (with N. Benton and G. Bierman), *Journal of Functional Programming*, 8(2):177-193, 1998.

Full intuitionistic linear logic (with M. Hyland), *Annals of Pure and Applied Logic*, 64(3):273-291, 1993.

Proceedings

Extracting Mathematical Concepts from Text. J Collard, V De Paiva, B Fong, E Subrahmanian. W-NUT workshop. Also preprint arXiv:2208.13830

Linguistic Legal Concept Extraction in Portuguese (with Alessandra Cid, Alexandre Rademaker, Bruno Cuconato). JURIX2018, 12-14th Dec, 2018, Groningen, The Netherlands

Relating Legal Entities via Open Information Extraction (with Giovanni Siragusa, Rohan Nanda, Luigi Di Caro). Proceedings of the 12th International Conference on Metadata and Semantics Research, Limassol, Cyprus, 26 October 2018

SICK-BR: a Portuguese corpus for inference (with Livy Real, Ana Rodrigues, Andressa Vieira e Silva, Beatriz Albiero, Bruna Thalenberg, Bruno Guide, Cindy Silva, Guilherme de Oliveira Lima, Igor C. S. Camara, Milo Stanojevic, Rodrigo Souza). In PROPOR2018 (International Conference on the Computational Processing of Portuguese), Canela Brazil, 26 September 2018.

Benchmarking Linear Logic Translations (with Carlos Olarte, Elaine Pimentel, Giselle Reis). Proceedings of the Linearity and TLLA Workshop, 08 July 2018. Oxford, UK.

On the Lambek Calculus with an Exchange Modality (with Jiaming Jiang, Harley Eades III). informal Proceedings of the Linearity and TLLA Workshop, Oxford, UK, 08 July 2018. <https://lipn.univ-paris13.fr/TLLALinearity18/>

Towards Temporal Reasoning in Portuguese (with Livy Real, Alexandre Rademaker, Fabricio Chalub). Proceedings of the 6th Workshop on Linked Data in Linguistics: Towards Linguistic Data Science, 12 May 2018. Miyazaki, Japan

Dialectica Categories for the Lambek Calculus (with Harley Eades III). Proceedings of the Symposium on Logical Foundations of Computer Science (LFCS 2018), 01 February 2018. Florida.

Extending Wordnet to Geological Times (with Henrique Muniz, Fabricio Chalub, Alexandre Rademake). Proceedings of the Globalex Workshop, associated with LREC 2018, May 2018. Miyazaki, Japan.

WordNet for “Easy” Textual Inferences (with Aikaterini-Lida Kalouli, Livy Real). Proceedings of the Globalex Workshop, associated with LREC 2018, 08 May 2018. Miyazaki, Japan.

Textual Inference: getting logic from humans. (with Aikaterini-Lida Kalouli, Livy Real). Proceedings of the 12th International Conference on Computational Semantics (IWCS), 22 September 2017.

Correcting Contradictions (with Aikaterini-Lida Kalouli, Livy Real). Proceedings of the Computing Natural Language Inference (CONLI) Workshop, 19 September 2017. Held in Montpellier, France.

Universal Dependencies for Portuguese (with Alexandre Rademaker, Fabricio Chalub, Livy Real, Cláudia Freitas, Eckhard Bick). Proceedings of the Fourth International Conference on Dependency Linguistics (Depling 2017), 10 August 2017. Pisa, Italy.

Multilingual Parsing from Raw Text to Universal Dependencies (with Daniel Zeman, Martin Popel, Milan Straka, Jan Hajic, Joakim Nivre, Filip Ginter, Juhani Luotolahti, Sampo Pyysalo, Slav Petrov, Martin Potthast, Francis M. Tyers, Elena Badmaeva, Memduh Gokirmak, Anna Nedoluzhko, Silvie Cinkova, Jan Hajic Jr., Jaroslava Hlavacova, Vaclava Kettnerova, Zdenka Uresova, Jenna Kanerva, Stina Ojala, Anna Missila, Christopher D. Manning, Sebastian Schuster, Siva Reddy, Dima Taji, Nizar Habash, Herman Leung, Marie-Catherine de Marneffe, Manuela Sanguinetti, Maria Simi, Hiroshi Kanayama, Kira Drozanova, Hector Martinez Alonso, Cagri Coltekin, Umut Sulubacak, Hans Uszkoreit, Vivien Macketanz, Aljoscha Burchardt, Kim Harris, Katrin Marheinecke, Georg Rehm, Tolga Kayadelen, Mohammed Attia, Ali El-Kahky, Zhuoran Yu, Emily Pitler, Saran Lertpradit, Michael Mandl, Jesse Kirchner, Hector Fernandez Alcalde, Jana Strnadova, Esha Banerjee, Ruli Manurung, Antonio Stella, Atsuko Shimada, Sookyoung Kwak, Gustavo Mendonca, Tatiana Lando, Rattima Nitisaroj, Josie Li). Proceedings of the CoNLL 2017 Shared Task, 03 August 2017. Vancouver, Canada.

Constructive Temporal Logic, Categorically. (with Harley Eades III) Book for Grigori Mints, 01 February 2017. Series Tributes, College Publications

Multiple Conclusion Linear Logic: Cut Elimination and More (with Harley Eades III), in Logical Foundations of Computer Science, 2016.

Seeing is Correcting: curating lexical resources using social interfaces (with Livy Real, Fabricio Chalub, Claudia Freitas, Alexandre Rademaker), in ACL-IJCNLP 2015.

Explaining Watson: Polymath Style. (with Wlodek W. Zadrozny, Lawrence S. Moss), in AAAI Publications, Twenty-Ninth AAAI Conference on Artificial Intelligence, 2015.

Exploratory information extraction from a historical dictionary. (with Dario Augusto Borges Oliveira, Suemi Higuchi, Alexandre Rademaker, Gerard De Melo), in IEEE 10th International Conference on e-Science (e-Science), 2014.

Extending a Lexicon of Portuguese Nominalizations with Data from Corpora. (with Cláudia Freitas, Alexandre Rademaker, Gerard de Melo, Livy Real, Anne Silva), in Computational Processing of the Portuguese Language, 2014.

Towards a rewriting framework for textual entailment. (with Vivek Nigam), in Pre-proceedings of the 9th Workshop on Logical and Semantic Frameworks, with Applications, Brasilia, Brazil, 2014.

Sense-specific implicative commitments. (with Gerard de Melo), in Computational Linguistics and Intelligent Text Processing, Springer Berlin Heidelberg, 2014.

NomLex-PT: A Lexicon of Portuguese Nominalizations. (with Livy Maria Real Coelho, Alexandre Rademaker), in LREC 2014.

Embedding NomLex-BR nominalizations into OpenWordnet-PT. (with Livy Maria Real Coelho, Alexandre Rademaker, Gerard de Melo), in Proc. of Global WordNet Conference, 2014.

OpenWordNet-PT: a project report. (with Livy Maria Real Coelho, Alexandre Rademaker, Gerard de Melo), in Proc. of Global WordNet Conference, 2014.

Contexts for quantification. In Proceedings of CommonSense, online only, 2013.

Where's the meeting that was cancelled? existential implications of transitive verbs. (with Patricia Amaral, Cleo Condoravdi, Annie Zaenen) In Proceedings of the 3rd Workshop on Cognitive Aspects of the Lexicon, Mumbai, India, COLING, 2012.

OpenWordNet-PT: An Open Brazilian Wordnet for Reasoning. (with Alexandre Rademaker, Gerard de Melo) In Proceedings of COLING (Demos), COLING, 2012.

Revisiting a Brazilian wordnet. (with Alexandre Rademaker) In Proceedings of 6th International Global Wordnet Conference (GWC), 2012.

Contextual Constructive Description Logics. (with Natasha Alechina) In Proceedings of ARCOE-11, 2011.

Intuitionistic Description Logic and Legal Reasoning (with E. Hermann Haeusler and Alexandre Rademaker), in DEXA Workshops 2011: 345-349, 2011.

Dialectica Fuzzy Petri Nets (with Apostolos Syropoulos), in "XVI Brazilian Logic Conference"(EBL), 2011.

Intuitionistic logic and legal ontologies (with E. Hermann Haeusler and Alexandre Rademaker), in Proceedings of the 2010 conference on Legal Knowledge and Information Systems: JURIX 2010: The Twenty-Third Annual Conference, 2010.

Using intuitionistic logic as a basis for legal ontologies (with E. Hermann Haeusler and Alexandre Rademaker), in Proceedings of the 4th Workshop on Legal Ontologies and Artificial Intelligence Techniques, 2010.

Designing Testsuites for Grammar-based Systems in Applications (with T. H. King), in Workshop on Grammar Engineering Across Frameworks (GEAF), Manchester, UK, August 2008.

Context Inducing Nouns (with Charlotte Price, Tracy Halloway King), in Coling 2008: Proceedings of the workshop on Knowledge and Reasoning for Answering Questions, Manchester, UK, August 2008.

Textual Inference Logic: Take Two, (with D. G. Bobrow, C. Condoravdi, R. Crouch, L. Karttunen, T. H. King, R. Nairn and A. Zaenen) Proceedings of the Workshop on Contexts and Ontologies, Representation and Reasoning, CONTEXT 2007.

PARC's bridge and question answering system, (with Daniel G Bobrow, Bob Cheslow, Cleo Condoravdi, Lauri Karttunen, Tracy Holloway King, Rowan Nairn) Proceedings of Grammar Engineering Across Frameworks, 2007.

Entailment, intensionality and text understanding, (with Cleo Condoravdi, Dick Crouch, Reinhard Stolle, Daniel G Bobrow) Proceedings of the HLT-NAACL 2003 workshop on Text meaning-Volume 9, 2003.

Categorical and Kripke semantics for constructive S4 modal logic, (with Natasha Alechina, Michael Mandler, Eike Ritter) Computer Science Logic, CSL 2001.

Extended Curry-Howard correspondence for a basic constructive modal logic, (with Gianluigi Bellin, Eike Ritter), Proceedings of Methods for Modalities, M4M 2001.

A term calculus for intuitionistic linear logic, (with Nick Benton, Gavin Bierman, Martin Hyland) Proceedings of Typed Lambda Calculi and Applications, TLCA 1993.

Linear λ -calculus and categorical models revisited, (with Nick Benton, Gavin Bierman, Martin Hyland) Computer Science Logic, (CSL) 1992.

Term assignment for intuitionistic linear logic (preliminary report), (with Nick Benton, Gavin Bierman, Martin Hyland) University of Cambridge, Computer Laboratory Technical Report 1992.

Software/data and other skills

MathFoldr data (TAC and nLab corpora) and preliminary demo from Topos Institute github.

Hy-NLI, XplaiNLI, GKR4NLI, GKRPaser software for hybrid and explainable natural language inference as well as semantic parser, available from Katerina Kalouli's website, <https://cis.lmu.de/~kalouli/resources.html>.

OpenWordNet-PT, NomLex-PT and SICK-BR available from GitHub.

Familiarity with ML, Java, Python and C, git, Perforce, SVN, CVS, plus Mac OS, Linux and Windows

Good assimilator and presenter of technical material, for technical and non-technical audiences

Languages

English	Proficient	
Portuguese	Proficient	(<i>native speaker</i>)
French	Advanced	