

# Sonia Marin

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## Employment

- 2021- *Lecturer in Computer Science*, University of Birmingham, United Kingdom.  
2019-2021 *Research fellow*, University College London, United Kingdom.  
Project: A coalgebraic framework for reductive logic and proof-search (*ReLiC*).  
2017-19 *Postdoctoral researcher*, IT-University of Copenhagen, Denmark.  
Project: Automated verification of properties of concurrent, distributed and parallel specifications (*MetaCLF2*).

## Education

- 2018 PHD in Computer Science, Université Paris Saclay - École Polytechnique.  
Thesis: *Modal proof theory through a focused telescope*  
2014 MSC in Cognitive Science, Université Paris 5 Descartes - École Normale Supérieure.  
Thesis: *Unawareness effect on decision-making*  
2013 MSC in Mathematical Logic, Université Paris 7 Diderot.  
Thesis: *Deductive systems for modal logics in nested sequents*  
2011 BSC in Mathematics, Université Paris 6 Pierre et Marie Curie.

## Research outputs

### Journal articles

- 2021 (tbc) *A fully labelled proof system for intuitionistic modal logics*. With Marianela Morales and Lutz Straßburger. Accepted for publication in the Special Issue of the JLC on External and Internal Calculi for Non Classical Logics.  
2021 (tbc) *Justification logic for constructive modal logic*. With Roman Kuznets and Lutz Straßburger. Accepted for publication in the Special Issue of the Journal of Applied Logic for the 7th Workshop on Intuitionistic Modal Logic and Applications.

### Conference proceedings

- March 2021 *Focused Proof-search in the Logic of Bunched Implications*. With Alexander Gheorghiu. Proceedings of FoSSaCS 2021.  
Oct. 2020 *Ecumenical modal logic*. With Luiz Carlos Pereira, Elaine Pimentel, and Emerson Sales. Proceedings of DaLi 2020.  
Sep. 2017 *Proof theory of indexed nested sequents*. With Lutz Straßburger. Proceedings of Tableaux 2017.

- Aug. 2016 *A focused framework for emulating modal proof systems.* With Dale Miller and Marco Volpe. Proceedings of AIML 2016.
- June 2016 *Modular focused systems for intuitionistic modal logics.* With Kaustuv Chaudhuri and Lutz Straßburger. Proceedings of FSCD 2016.
- April 2016 *Focused and Synthetic Nested Sequents.* With Kaustuv Chaudhuri and Lutz Straßburger. Proceedings of FoSSaCS 2016.
- Aug. 2014 *Label-free Modular Systems for Classical and Intuitionistic Modal Logics.* With Lutz Straßburger. Proceedings of AIML 2014.

### Peer-reviewed short papers and abstracts

- Aug. 2020 *Fully structured proof theory for intuitionistic modal logics.* With Marianela Morales. Accepted for presentation at AIML 2020.
- Aug. 2020 *Ecumenical modal logic.* With Luiz Carlos Pereira, Elaine Pimentel, and Emerson Sales. Accepted for presentation at AIML 2020.
- Nov. 2019 *On cut-elimination for non-wellfounded proofs: the case of PDL.* With Anupam Das. Accepted for presentation at the workshop Circularity in Syntax and Semantics.
- July 2017 *Justification logic for constructive modal logic.* With Roman Kuznets and Lutz Straßburger. Accepted for presentation at IMLA 2017.
- Nov. 2016 *Comparing BOX and ! via polarities.* Accepted for presentation at the workshop Linear Logic: interaction, proofs and computation.
- June 2015 *A cut-free proof system for pseudo-transitive modal logics.* Accepted for presentation at TACL 2015.

### Teaching

- Dec. 2021 Summer school lecturer. Proof theory for substructural and modal logics. CIMPA School in Mathematical Logic and Applications. UFRN, Brazil.
- Spring 2021 Teaching assistant. Directed reading. MEng Mathematical Computation, 2nd year.
- Spring 2021 Teaching assistant. Theory of computation. BSc Computer Science, 1st year.
- Fall 2020 Teaching assistant. Logic and databases. BSc Computer Science, 2nd year.
  
- Spring 2019 Co-lecturer. Linear algebra and probability. MSc Computer Science, 4th year.
- Nov. 2018 Guest lecturer. Reasoning and meta-reasoning. Cognitive psychology, Carnegie Mellon University Qatar.
- Fall 2018 Teaching assistant. Machine learning. BSc Data Science, 2nd year.
  
- Fall 2016 Teaching assistant. Multiple variables and vectorial analysis. BSc Maths, 2nd year.
- Fall 2016 Teaching assistant. Analysis and algebra for sciences. BSc Maths, 1st year.
- Spring 2016 Teaching assistant. Integration and linear algebra. BSc Maths, 1st year.