

Benjamin Ralph

Postdoctoral Researcher at Inria Saclay

Personal Email: benralph7@gmail.com
Work Email: benjamin.ralph@inria.fr
Website: people.bath.ac.uk/bdr25

Academic

Postdoctoral Position

Postdoctoral researcher at INRIA Saclay - Île-de-France

February 2019–Present

- Working with team Parsifal led by Dale Miller, supervised by Lutz Straßburger.
- Supported by ANR project FISP ANR-15-CE25-0014-01 - the Fine Structure of Formal Proof Systems and their Computational Interpretations

Degrees

PhD, Department of Computer Science, University of Bath

2014–2019

Modular Normalisation of Classical Proofs

- Fully funded by EPSRC Doctoral Training Grant (fees and stipend).
 - Supervised by Alessio Guglielmi
 - Examined by Georg Moser and Willem Heijltjes, passed with minor corrections.
- people.bath.ac.uk/bdr25/files/thesis-ralph-final.pdf

MMathPhil (Masters in Mathematics and Philosophy), University of Oxford

2010–2014

First Class in Honour Moderations, Parts A and B, and Part C

Publications

Towards a Combinatorial Proof Theory

with Lutz Straßburger

Tableaux 2019, London

people.bath.ac.uk/bdr25/files/CPT.pdf

A Natural Proof System for Herbrand's Theorem

awarded the Rosser Prize for Best Student Paper

LFCS 2018, Florida

people.bath.ac.uk/bdr25/files/prfsysht.pdf

Removing Cycles from Proofs

with Andrea Aler Tubella and Alessio Guglielmi

CSL 2017, Stockholm

people.bath.ac.uk/bdr25/files/RCP.pdf

Selected Talks and Presentations

Towards a Combinatorial Proof Theory

LIPN Seminar, Université Paris 13, May 2019 & Micro-SD, University of Bath, June 2019

Decomposing First Order Proofs using Deep Inference

PCC 2016, Munich

Decomposing First Order Proofs

ALCOP 2016, Vienna

A Natural Cut Elimination Procedure for First Order Logic

ENPS 2015, Bath

Natural and Confluent Cut Elimination in Classical Logic

PCC 2015, Oslo

Grants

Support from:

EPSRC Project EP/K018868/1

Efficient and Natural Proof Systems

ANR project FISP ANR-15-CE25-0014-01

The Fine Structure of Formal Proof Systems and their Computational Interpretations

Other

2019 - **Programme Committee** - Structures and Deduction

2017–2019 - **Peer Reviewer** - Tableaux, CSL, Logique et Analyse

2016–2017 - **Organiser** - Mathematical Foundations Seminar, University of Bath

2016 - **Volunteer** - LICS

2015 - **Attendee** - Midlands Graduate School in the Foundations of Computer Science

Teaching

All at the University of Bath

Computer Science

2017–2018 - **Analytic Mathematics For Computation**

2016–2018 - **Functional Programming, Artificial Intelligence**

2014–2018 - **Discrete Mathematics For Computation**

2014–2016 - **Foundations of Computation II, Advanced Programming Principles**

2016 - **Guest Lecture: What is a proof?**

Mathematics

2016–2017 - **Programming and Discrete Mathematics**

2014–2016 - **Algebra I**