

Emanuele D'Ossualdo

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Current position

From May 2015 **Postdoctoral Researcher**, *Concurrency Theory Group*, TU Kaiserslautern, Germany
Topic Logics and Automata for Infinite State Model Checking (with Prof. Roland Meyer)
Research Interests Models of Concurrency, Process Algebra, Program Analysis, Model Checking, Semantics, Declarative Programming.

Education

2010–2015 **PhD in Computer Science**, *University of Oxford*, Merton College, UK
Thesis Verification of Message Passing Concurrent Systems
Supervisor Prof. C.-H. Luke Ong
Awards [Winner of the 2016 British Computer Society Distinguished Dissertation award](#)

2007–2010 **M.Sc. in Computer Science**, *University of Udine*, Italy, 110/110 *cum laude*
Dissertation on static analysis of Bigraphs by Abstract Interpretation

2004–2007 **B.Sc. in Computer Science**, *University of Udine*, Italy, 110/110 *cum laude*
Dissertation about Monads and Arrows in Haskell

Oct 2007–Mar 2008 **Exchange Student (Erasmus)**, *Istanbul Bilgi Universitesi*, Istanbul, Turkey

Selected Publications

LICS'16 **First-order Logic with Reachability for Infinite-State Systems**, with *Roland Meyer and Georg Zetsche*. In LICS'16, to appear.

ESOP'16 **On Hierarchical Communication Topologies in the π -calculus**, with *Luke Ong*. In European Symposium on Programming. Vol. 9632 of LNCS. Springer. 2016.

SAS'13 **Automatic Verification of Erlang-Style Concurrency**, with *Jonathan Kochems and Luke Ong*. In Static Analysis. Vol. 7935 of LNCS. Springer. 2013.

Awards

2016 **Winner of the Distinguished Dissertation award**, *British Computer Society*, UK
Best British PhD dissertation in Computer Science selected by the Council of Professors and Heads of Computing, and the BCS Academy of Computing.

2004–2010 **Scatcherd European Scholarship**, *University of Oxford*, UK
University wide scholarship, covering fees and living costs.

2004–2010 Student of **Scuola Superiore**, *University of Udine*, Italy
University wide scholarship for excellent students lasting five years. Members are annually reviewed and required to attend extra courses. See [scuolasuperiore.uniud.it](#).

Experience

- Nov 2014–May 2015** **Research Assistant**, *Saïd Business School*, University of Oxford, UK
Design and implementation of a web application for the visualisation and simulation of a labour market model
- Apr–Jul 2010** **Research Assistant**, *University of Siena*, Italy (under Prof. Moreno Falaschi)
Abstract Interpretation of Universal Timed Concurrent Constraint programs

Teaching

- Apr–Jul 2016** **Lecturer**, *Dept. of Computer Science*, TU Kaiserslautern, Germany
Topic Advanced Automata Theory
- May–Jul 2015** **Teaching Assistant**, *Dept. of Computer Science*, TU Kaiserslautern, Germany
Topic Concurrency Theory
- Jun 2013–Mar 2014** **Tutor** at *Merton College*, University of Oxford, UK
Topics Concurrent Programming, Imperative Programming 2
- 2011–2014** **Teaching Assistant**, *Dept. of Computer Science*, University of Oxford, UK
Topics Imperative Programming (Scala), Concurrent Programming (Scala), Functional Programming (Haskell), Concurrency (CSP).

Talks

- On Hierarchical Communication Topologies in the π -calculus**
Aug 2016 Nanyang Technological University, Singapore
Aug 2016 CPDS Workshop, NUS, Singapore
Mar 2016 D-CON'16, Universität des Saarlandes, Saarbrücken, Germany
Feb 2016 OASIS Seminar, University of Oxford
Feb 2016 Imperial College, London
- Precise Abstractions of Concurrent Systems**
Aug 2014 University of Southampton
- Automatic Verification of Erlang-Style Concurrency**
Jan 2013 Student Short Talk Session at POPL'13, Rome
Sept 2012 University of Udine, Italy
- Towards Static Analysis for Bigraphical Reactive Systems**
Oct 2011 Bigraphs Present & Future Workshop, IT University of Copenhagen

Academic Activities

- Reviewer** TLCA'11, MFCS'12, POPL'12, TAMC'12, DMC'14, VMCAI'14, CONCUR'15, FSTTCS'15, LICS'15, NETYS'16, TACAS'16, Information and Computation.

Software Projects

Soter An Haskell program for automatic static analysis of Erlang modules, developed with Jonathan Kochems.

Demo <http://mjolnir.cs.ox.ac.uk/soter/>

JamesBound An experimental type system (and playground) for the π -calculus (implementing the ESOP'16 paper).

Sources <http://github.com/bordaigorl/jamesbound>

LaborSim A JavaScript/D3.js webapp simulating an agent computing model of the individual dynamics of firms and workers in the labor market.

Website <http://oguerr.com/laborsim/>

Other skills

Languages Italian (native speaker)
English (fluent)

Programming Haskell, Python, JavaScript *Good Knowledge*
Scala, Java, Erlang *Basic Knowledge*

Typesetting Experienced user of \LaTeX , BEAMER and TikZ.

Music Studied violin for more than ten years playing Classical Music and Jazz.
Studied Musical Composition from 2000 to 2005 at the conservatory of Udine.