Emanuele D'Osualdo

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Academic Experience

May 2015-present Postdoctoral Researcher, Concurrency Theory Group, TU Kaiserslautern, Germany

Research on Model-checking, Logics and Automata under the supervision of Prof. R. Meyer

Research Interests Program Analysis, Model Checking, Semantics, Models of Concurrency, Process Alge-

bra, Declarative Programming

Apr-Jul 2010 Research Assistant, University of Siena, Italy (under Prof. Moreno Falaschi)

Abstract Interpretation of Universal Timed Concurrent Constraint programs

Teaching

2013 Tutor at Merton College, Oxford

Topics Concurrent Programming, Imperative Programming 2

2011–2014 Teaching Assistant, Dept. of Computer Science, Oxford

Imperative Programming (Scala), Concurrent Programming (Scala), Functional Pro-

gramming (Haskell), Concurrency (CSP).

Education

Topics

2010–2015 PhD in Computer Science, Merton College, University of Oxford

Thesis Verification of Message Passing Concurrent Systems

(Nominated for the 2016 CPHC/BCS Distinguished Dissertations competition)

Supervisor Prof. C.-H. Luke Ong

2007-2010 M.Sc. in Computer Science, University of Udine, Italy, 110/110 cum laude

Dissertation on static analyses of Bigraphs by Abstract Interpretation

supervised by Prof. Marco Comini and Prof. Marino Miculan.

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

Awards

2004–2010 Scatcherd European Scholarship, University of Oxford

University wide scholarship, covering fees and living costs.

2004–2010 Student of Scuola Superiore, University of Udine

University wide scholarship for excellent students lasting five years, covering both undergraduate and graduate studies.

Selected Publications

LICS'16 First-order logic with reachability for infinite-state systems, with Roland Meyer

and Georg Zetzsche. 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.

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 dy-

namics of firms and workers in the labor market.

Website http://oguerr.com/laborsim/

Other skills

Languages Italian (mother tongue)

English (fluent)

Programming Haskell, Python, JavaScript, Scala, Java, Prolog.

Typesetting Experienced user of \LaTeX , BEAMER and TikZ.

Music Studied violin for more than ten years playing mostly Classical Music.

Lately has also been studying Jazz and improvisation on the violin.

Studied Musical Composition from 2000 to 2005 at the conservatory of Udine.