

CALL FOR PAPERS

Formal Methods for Pervasive Systems (Pervasive@FM2011)

[A Workshop at FM 2011 — <http://fm2011.lero.ie>]

LERO, Limerick, Ireland 20th June, 2011

<http://www.csc.liv.ac.uk/%7Emichael/Pervasive@FM2011>

BACKGROUND: Pervasive and ubiquitous computing implies a vision of small, inexpensive, robust, networked devices, operating to support multiple aspects of everyday life. Identifying and developing appropriate formal approaches is a key challenge for understanding and analysing those systems. Pervasive applications typically interact with heterogeneous networks in multiple contexts, and their implementations may span multiple devices with widely differing resource constraints. This poses significant difficulties for current analysis, design and verification methodologies. While some of these issues have been addressed separately in previous work, their combination and interaction presents significant new challenges.

The workshop aims to bring together researchers from the pervasive computing and formal methods communities, to determine how the current state of the art in formal methods can be applied to pervasive computing, and to map out key research questions and future directions for formal approaches to pervasive systems.

TOPICS OF INTEREST:

Logics, Process calculi, Automata, Specification languages, Model checking, Probabilistic analysis, Automated deduction, Theorem-proving, Tools

FOR

*privacy, behaviour, security, reliability, interoperability
mobility, context-aware, resource requirements, temporal*

ASPECTS OF

*pervasive healthcare systems, sensor networks, telephony, human-device interaction
e-commerce, cloud computing, electronic tags, device swarms, MANETs/VANETs*

SUBMISSIONS: We invite two kinds of submission:

1. Original research papers concerning any of the topics described above; or
2. Survey papers providing an overview of some of the topics described above.

Submissions should be written in English, formatted according to the Springer LNCS style, and not exceed 20 pages in length. Submissions must be made via

<http://www.easychair.org/conferences/?conf=pervasivefm2011>.

Our aim is for an informal proceedings based on these submissions to be available during the workshop. Depending upon the success of the workshop, we intend to produce an edited book based (at least in part) upon the contributions or develop a special issue of a journal.

INVITED SPEAKER:

- **Simon Dobson** (School of Computer Science, University of St. Andrews)

STEERING COMMITTEE:

- **Natasha Alechina** (School of Computer Science, University of Nottingham)
- **Muffy Calder** (School of Computing Science, University of Glasgow)
- **Michael Fisher** (Department of Computer Science, University of Liverpool)
- **Brian Logan** (School of Computer Science, University of Nottingham)
- **Mark Ryan** (School of Computer Science, University of Birmingham)

WORKSHOP CO-CHAIRS:

Michael Fisher (Liverpool, UK)
Brian Logan (Nottingham, UK)

PROGRAMME COMMITTEE:

Natasha Alechina (Nottingham, UK)
Myrto Arapinis (Birmingham, UK)
Mohamed Bakhouya (Belfort, FR)
Doina Bucur (INCAS3, NL)
Michael Butler (Southampton, UK)
Muffy Calder (Glasgow, UK)
Antonio Coronato (CNR, IT)
Soren Debois (Copenhagen, DK)
Giuseppe De Pietro (CNR, IT)
Marina De Vos (Bath, UK)
Simon Dobson (St Andrews, UK)
Michael Fisher (Liverpool, UK)
Michael Harrison (Newcastle, UK)
Savas Konur (Liverpool, UK)
Brian Logan (Nottingham, UK)
Alessio Lomuscio (Imperial, UK)
Ka Lok Man (XJTLU, CN)
Gethin Norman (Glasgow, UK)
Julian Padget (Bath, UK)
Anand Ranganathan (IBM, USA)
Alessandro Russo (Imperial, UK)
Mark Ryan (Birmingham, UK)
Chris Unsworth (Glasgow, UK)
Kaiyu Wan (XJTLU, CN)

IMPORTANT DATES:

Deadline for submission: **20th March, 2011**
Notification of acceptance: **1st May, 2011**
Version for pre-proceedings due: **20th May, 2011**
Workshop: **20th June, 2011**