



1st International Symposium on Search Based Software Engineering

Cumberland Lodge, Windsor, UK

13 - 15 May, 2009

www.ssbse.org

CALL FOR PARTICIPATION

We invite you to participate in the 1st International Symposium on Search Based Software Engineering – SSBSE 2009.

SSBSE 2009 is the inaugural meeting of an annual symposium dedicated to Search Based Software Engineering (SBSE), held in cooperation with the IEEE. The symposium's objective is to build on the recent flourishing of interest in SBSE by not only creating a welcoming forum for discussion and dissemination, but also by establishing a regular event that will strengthen the rapidly growing international community.

The venue for SSBSE 2009 is Cumberland Lodge, a beautiful and historic royal residence in the heart of Windsor Great Park with world-class conference facilities. The Lodge is close to London, and only a short taxi ride from Heathrow Airport, yet is surrounded by some of the finest parkland in the country.

Registration for the symposium is now open. The registration fee covers not only attendance at the symposium, but also accommodation and meals at Cumberland Lodge. For details, please see the symposium website at: www.ssbse.org.



Cumberland Lodge, by Zheng Li

KEYNOTE SPEAKERS

The symposium program includes three keynote speakers who are internationally renowned leaders in their research fields:

- Enrique Alba, University of Malaga, Spain
- Lionel C. Briand, Simula Research Lab & University of Oslo, Norway
- David E. Goldberg, Illinois Genetic Algorithms Laboratory (IlligAL), University of Illinois at Urbana-Champaign, USA

SOFTWARE ENGINEERING EXPERTS' PANEL

The Status and Future of SBSE in the Software Engineering Community

We are very pleased to announce a special panel discussion as part of the symposium program. Five world-leading experts on software engineering will discuss the current state of search based software engineering research, identify challenges to the research agenda, and assess the potential impact of SBSE on software engineering practice.

The panellists are:

- Norman Fenton, Queen Mary, University of London, UK
- Anthony Finkelstein, University College London, UK
- Paola Inverardi, Università dell'Aquila, Italy
- Mary Lou Soffa, University of Virginia, USA
- Ian Sommerville, University of St Andrews, UK

CALL FOR FAST ABSTRACTS

We invite the submission of Fast Abstracts to the symposium that describe either:

- research in progress that has yet to be fully developed and validated; or,
- opinions on important and controversial themes in search based software engineering.

Fast Abstracts should not exceed 2 pages in the IEEE proceedings format, and will be reviewed for relevance, soundness, ability to stimulate discussion, and novelty. Contributions should be original work that has not been submitted elsewhere, but authors will retain copyright. Accepted contributions will be allocated a 10 minute presentation at the symposium, and will be published on the SSBSE 2009 website.

Fast Abstracts should be submitted by 20 April 2009; authors will be notified of acceptance on 30 April 2009. Further details on formatting and submission are available from the SSBSE 2009 website: www.ssbse.org.

Please note that the submission and selection of regular technical papers is now complete.

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PROGRAM - WEDNESDAY, MAY 13

Keynote

Model-driven Development and Search-based Software Engineering: An Opportunity for Research Synergy

Lionel C. Briand

Simula Research Lab and University of Oslo, Norway

Session 1 – Testing and Defect Prediction

- Search-Based Testing of Ajax Web Applications
Alessandro Marchetto and Paolo Tonella
- An Improved Meta-Heuristic Search for Constrained Interaction Testing
Brady J. Garvin, Myra B. Cohen and Matthew B. Dwyer
- Evolution and Search Based Metrics to Improve Defects Prediction
Segla Kpodjedo, Filippo Ricca, Giuliano Antoniol and Philippe Galinier

ORGANIZING COMMITTEE

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- Website
David White and Paul Emberson, University of York, UK

PROGRAM - THURSDAY, MAY 14

Keynote

Not Your Grandmother's Genetic Algorithm

David E. Goldberg

University of Illinois at Urbana-Champaign, USA

Session 2 – PhD Student Track

- Search-Based Prediction of Fault Count Data
Wasif Afzal, Richard Torkar and Robert Feldt
- On Search Based Software Evolution
Andrea Arcuri
- Local Search-Based Refactoring as Graph Transformation
Fawad Qayum and Reiko Heckel

Session 3 – Software Evolution

- A Study of the Multi-Objective Next Release Problem
J. J. Durillo, Y. Zhang, E. Alba and A. J. Nebro
- Dynamic Architectural Selection: A Genetic Algorithm Based Approach
Dongsun Kim and Sooyong Park
- On the Use of Discretized Source Code Metrics for Author Identification
Maxim Shevertalov, Jay Kothari, Edward Stehle and Spiros Mancoridis

Software Engineering Experts' Panel

The Status and Future of SBSE in the Software Engineering Community

- *Norman Fenton, Queen Mary, University of London, UK*
- *Anthony Finkelstein, University College London, UK*
- *Paola Inverardi, Università dell'Aquila, Italy*
- *Mary Lou Soffa, University of Virginia, USA*
- *Ian Sommerville, University of St Andrews, UK*

PROGRAM - FRIDAY, MAY 15

Keynote

How Can Metaheuristics Help Software Engineers

Enrique Alba

Universidad de Málaga, Spain

Session 4 – Short Papers

- Search-Based Testing with in-the-loop systems
Joachim Wegener and Peter M. Kruse
- A Testability Transformation Approach for State-Based Programs
AbdulSalam Kalaji, Robert M. Hierons and Stephen Swift
- Searching for Rules to find Defective Modules in Unbalanced Datasets
D. Rodríguez, J.C. Riquelme, R. Ruiz, and J.S. Aguilar-Ruiz
- Formal model simulation: can it be guided?
Thang H. Bui and Albert Nymeyer
- How can optimization models support the maintenance of component-based software?
Vittorio Cortellessa and Pasqualina Potena

Session 5 – Testing

- WCET Analysis of Modern Processors Using Multi-Criteria Optimisation
Usman Khan and Iain Bate
- Full Theoretical Runtime Analysis of Alternating Variable Method on the Triangle Classification Problem
Andrea Arcuri
- Widening the Goal Posts: Program Stretching to Aid Search Based Software Testing
Kamran Ghani and John A. Clark

Session 6 - Fast Abstracts

(papers will be available from www.ssbse.org)