

CALL FOR PAPERS

CALCO 2005

1st Conference on Algebra and Coalgebra in Computer Science

September 3-6, 2005

University of Wales Swansea, UK

<http://www.cs.swan.ac.uk/calco/>

With the support of IFIP WG1.3 on Foundations of System Specification

CMCS – the International Workshop on Coalgebraic Methods in Computer Science, and WADT – the Workshop on Algebraic Development Techniques, are joining their forces and reputations into a new high-level bi-annual conference. Starting in 2005, CALCO will bring together researchers and practitioners to exchange new results related to foundational aspects and both traditional and emerging uses of algebras and coalgebras in computer science.

Topics of Interest

We invite submission of technical papers that report results of theoretical work on the mathematics of algebras and coalgebras, the way these results can support methods and techniques for software development, as well as experience with the transition of resulting technologies into industrial practice. We encourage submissions in topics included or related to those in the lists below.

Algebras and coalgebras as mathematical objects:

- Automata and languages
- Categorical semantics
- Hybrid, probabilistic, and timed systems
- Inductive and coinductive methods
- Modal logics
- Relational systems and term rewriting

Algebras and coalgebras in computer science:

- Abstract data types
- Algebraic and coalgebraic specification
- Calculi and models of concurrent, distributed, mobile, and context-aware computing
- Formal testing and quality assurance
- General systems theory and computational models (chemical, biological, etc)
- Generative programming and model-driven development
- Models, correctness and (re)configuration of hardware/middleware/architectures
- Re-engineering techniques (program transformation)
- Semantics of conceptual modelling methods and techniques
- Semantics of programming languages
- Validation and verification

Submission Guidelines

Prospective authors are invited to submit full papers in English presenting original research. Submitted papers must be unpublished and not submitted for publication elsewhere. Experience papers are welcome, but they must clearly present general lessons learned that would be of interest and benefit to a broad audience of both researchers and practitioners.

Springer has been contacted for publication of the proceedings in the LNCS series. Final papers will be no more than 15 pages long in the format specified by Springer. It is recommended that submissions adhere to that format and length (see at <http://www.springer.de/comp/lncs/authors.html>). Submissions that are clearly

too long may be rejected immediately. Proofs omitted due to space limitations may be included in a clearly marked appendix.

Paper submissions will be made electronically at the conference web site. Both an abstract and the full paper must be submitted by their respective submission deadlines.

A special issue of Theoretical Computer Science consisting of extended versions of selected papers will be produced after the conference if there are enough good papers that can be extended and revised to the standards of this journal.

Important Dates (all in 2005)

Jan 21	Abstract submission due
Jan 31	Technical paper submissions due
April 11	Author notification
May 30	Camera ready due
Sept 3-6	CALCO technical programme

Programme Committee

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Organising Committee

Neal Harman and Markus Roggenbach, University of Wales Swansea, UK

Location and Organization

The City of Swansea dates from the 10th Century AD and is currently an expanding centre for high tech. industry. Swansea is located at the centre of the South Wales coastline, next to the Gower peninsula, renowned for its dramatic coastal scenery and beaches.

The conference will be held on the Swansea University campus overlooking the sea. Accommodation will be available in newly built halls of residence and also in a small selection of good quality hotels. A full social programme drawing on the culture of the area will complement the scientific event.