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Fundamental Approaches to Software Engineering

11th International Conference, FASE 2008
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on Theory and Practice of Software, ETAPS 2008
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Proceedings

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Foreword

ETAPS 2008 was the 11th instance of the European Joint Conferences on Theory and Practice of Software. ETAPS is an annual federated conference that was established in 1998 by combining a number of existing and new conferences. This year it comprised five conferences (CC, ESOP, FASE, FOSSACS, TACAS), 22 satellite workshops (ACCAT, AVIS, Bytecode, CMCS, COCV, DCC, FESCA, FIT, FORMED, GaLoP, GT-VMT, LDTA, MBT, MOMPES, PDMC, QAPL, RV, SafeCert, SC, SLA++P, WGT, and WRLA), nine tutorials, and seven invited lectures (excluding those that were specific to the satellite events). The five main conferences received 571 submissions, 147 of which were accepted, giving an overall acceptance rate of less than 26%, with each conference below 27%. Congratulations therefore to all the authors who made it to the final programme! I hope that most of the other authors will still have found a way of participating in this exciting event, and that you will all continue submitting to ETAPS and contributing to make of it the best conference in the area.

The events that comprise ETAPS address various aspects of the system development process, including specification, design, implementation, analysis and improvement. The languages, methodologies and tools which support these activities are all well within its scope. Different blends of theory and practice are represented, with an inclination towards theory with a practical motivation on the one hand and soundly based practice on the other. Many of the issues involved in software design apply to systems in general, including hardware systems, and the emphasis on software is not intended to be exclusive.

ETAPS is a confederation in which each event retains its own identity, with a separate Programme Committee and proceedings. Its format is open-ended, allowing it to grow and evolve as time goes by. Contributed talks and system demonstrations are in synchronized parallel sessions, with invited lectures in plenary sessions. Two of the invited lectures are reserved for ‘unifying’ talks on topics of interest to the whole range of ETAPS attendees. The aim of cramming all this activity into a single one-week meeting is to create a strong magnet for academic and industrial researchers working on topics within its scope, giving them the opportunity to learn about research in related areas, and thereby to foster new and existing links between work in areas that were formerly addressed in separate meetings.

ETAPS 2008 was organized by the John von Neumann Computer Society jointly with the Budapest University of Technology and the Eötvös University, in cooperation with:

- ▷ European Association for Theoretical Computer Science (EATCS)
- ▷ European Association for Programming Languages and Systems (EAPLS)
- ▷ European Association of Software Science and Technology (EASST)

and with support from Microsoft Research and Danubius Hotels.

The organizing team comprised:

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Overall planning for ETAPS conferences is the responsibility of its Steering Committee, whose current membership is:

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I would like to express my sincere gratitude to all of these people and organizations, the Programme Committee Chairs and members of the ETAPS conferences, the organizers of the satellite events, the speakers themselves, the many reviewers, and Springer for agreeing to publish the ETAPS proceedings. Finally, I would like to thank the Organizing Chair of ETAPS 2008, Dániel Varró, for arranging for us to have ETAPS in the most beautiful city of Budapest

Preface

Software products are increasingly dominating our lives. Their pervasiveness makes it crucial for both economical and social progress that producing software of high quality and at low cost becomes routine. In order to achieve this goal, software engineers need to have at their disposal theories, languages, methods, and tools that derive from both the systematic research of the academic community and the distilled experience of practitioners. The International Conference on Fundamental Approaches to Software Engineering (FASE)—one of the European Joint Conferences on Theory and Practice of Software (ETAPS)—is concerned with the foundations on which Software Engineering is built. Its focus is on the principles on which methods, tools or techniques are based and on the way in which these contribute to making Software Engineering a more mature and responsible professional activity.

This year, FASE received 119 submissions. Each submission was reviewed by at least three technical experts from the program committee or the external research community. Each paper was discussed during a two-week “electronic” meeting. We wish to express our sincere thanks to all of the referees for the time, effort and care taken in reviewing and discussing the submissions.

The program committee selected a total of 31 papers, 5 of which were tool demonstrations. Accepted papers address a fair range of topics including requirements and architectures, models and models transformation, service oriented systems, adaptable systems, verification and testing, objects and components, and design. The technical program was complemented by the invited lectures of Connie Heitmeyer, *On the Utility of Formal Methods in Building Software: A Panacea or Academic Poppycock?* and Tom Reps, *WYSINWYX: What You See Is Not What You eXecute*.

FASE 2008 was held in Budapest (Hungary) as part of the 11th edition of ETAPS. Arrangements were the responsibility of the local organization committee and overall coordination of ETAPS was carried out by its steering committee. We would like to thank the chairs of these committees, Daniel Varr and Vladimiro Sassonne, as well as Perdita Stevens as chair of the steering committee until September 2007, for the professional and friendly support with which we were provided throughout this process.

The planning and coordination of the FASE series of conferences is the responsibility of EASST (European Association of Software Science and Technology). We would like to thank Maura Cerioli, as chair of the steering committee of FASE in 2006, for having invited us to be co-chairs of this 2008 edition. We wish all the best to the co-chairs of the 2009 edition, Marsha Chechik and Martin Wirsing.

As always, the stars of the show are the authors of the papers, especially the presenters. We would like to thank them all for having put so much effort

into the papers and presentations (and meeting all the deadlines!). As to the attendees of FASE 2008, we are sure that they will have been inspired by the quality of the program (both technical and social) and will have started planning their submissions to FASE 2009.

January 2008

José Fiadeiro
Paola Inverardi

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