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Preface

Work on this volume started with the Lipari Summer School on *Advances in Software Engineering*, which the first editor organized together with Alfredo Ferro from the University of Catania in July 2007. It was the 19th in a well-known series of annual international schools, addressed at computer science researchers.[1]

The themes of the courses, of four one-hour lectures each, ranged from *domain and requirements engineering* (Dines Bjoerner, Technical University of Denmark, and Florin Spanachi, SAP Research, Germany) over *high-level modeling* (Egon Börger, University of Pisa, Italy) and *software product line techniques* (Don Batory, University of Texas at Austin, USA) to *evolvable software* (Peter Sestoft, Royal Veterinary and Agricultural University of Denmark) and the evolution of *service-oriented software architectures* (Carlo Ghezzi, Politecnico di Milano, Italy) in particular for *Web services* (Boualem Benatallah, University of New South Wales, Australia) and the crucial problem of how to reach *security* in such evolving distributed systems (Dieter Gollmann, Technical University Hamburg-Harburg, Germany).

In two seminars the theme of evolvable software was further developed by the presentation of new techniques for software manipulation with annotations in Java (Vincenzo Gervasi, University of Pisa) and for the code-bricks-based runtime composition of self-evolving programs (Antonio Cisternino, University of Pisa).

For unforseeable personal circumstances Michael Jackson (London) was unable to deliver his lectures as planned. However, this volume contains his reflections on which directions software engineering should take to become a truly engineering discipline.

This book is not a proceedings volume, but a collection of research papers on themes treated in the school, written with the intent to produce a state-of-the art compendium of recent advances in software engineering. However, the contributions reflect the extensive discussions we had during the two weeks in Lipari.

All contributions, written between August 2007 and January 2008, have been reviewed, revised and reviewed again during the period February–August 2008. We thank the 21 reviewers for their considerable and very constructive work, although as usual they have to remain anonymous. Last but not least we thank the authors for their commitment to this volume.

October 2008   Egon Börger
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[1] See http://lipari.cs.unict.it/LipariSchool/CS/previousedition/edition2007.htm

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