

# Preface

This book constitutes the proceedings of UTP 2014, the 5th International Symposium on Unifying Theories of Programming, held on May 13, 2014 in Singapore. It was colocated with the 19th International Symposium on Formal Methods, FM 2014.

For good reasons there are numerous formal notations and theories of programming. These theories define, in various different ways, many common notions such as abstraction, refinement, choice, termination, feasibility, locality, concurrency, and communication. Despite these differences, such theories may be unified to facilitate their study and comparison. Unification also offers a means of combining different languages describing various facets and artifacts of software development in a seamless, logically consistent way. Unifying Theories of Programming, the title of a seminal book by C.A.R. Hoare and He Jifeng, is a rallying cry. It is also their name for a particular technical approach to unifying theories that has been extensively developed by a number of research groups.

UTP 2014 was the fifth in a series of symposia that have brought together innovators and practitioners working on unifying theories of programming. The previous editions of the Symposium on Unifying Theories of Programming were UTP 2006 (County Durham, UK), UTP 2008 (Dublin, Ireland), UTP 2010 (Shanghai, China), and UTP 2012 (Paris, France). The 2014 meeting was preceded by a full-day tutorial on Unifying Theories of Programming in Isabelle/HOL presented by Jim Woodcock and Simon Foster.

Eleven papers were submitted and each was reviewed by four Program Committee members. Seven papers were selected by the committee for presentation at the meeting and subsequent revision to appear in this volume. In addition, there was an invited talk by Ian Hayes.

I would like to thank all the authors and participants for their contributions to the event. I thank the UTP Program Committee for enthusiastic and engaged participation in the review process. Thanks to the UTP Steering Committee, especially Shengchao Qin and Ana Cavalcanti, for essential advice and encouragement. Special thanks to Jin Song Dong, General Chair of Formal Methods 2014, and Shengchao Qin, Workshop Chair of FM, and all the others who made FM and its associated events a fruitful and enjoyable opportunity for scientific interaction. EasyChair was instrumental in managing the scientific evaluation process and preparing this volume.

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