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Unifying Theories of Programming

First International Symposium, UTP 2006
Walworth Castle, County Durham, UK
February 5-7, 2006
Revised Selected Papers

Volume Editors

Steve Dunne
Bill Stoddart
University of Teesside
School of Computing
Borough Road, Middlesbrough, TS1 3BA, UK
E-mail: {s.e.dunne,w.j.stoddart}@tees.ac.uk

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Preface

A number of formal notations and theories have now emerged and proved themselves effective as tools for the practising software engineer. Within these theories we see a number of common themes, such as abstraction, refinement, choice, termination, feasibility, concurrency and communication. The commonality of such themes opens perspectives for unifying theories, an activity which can increase our ability to use existing methods and notations, to recognise their limitations, and to extend and generalise them. Based on the pioneering work on unifying theories of programming of Tony Hoare and He Jifeng, which itself acknowledges the influence of Eric Hehner's seminal ideas on predicative programming, the aims of this first UTP symposium are to reaffirm the significance of the ongoing UTP project, to encourage efforts to advance it by providing a focus for the sharing of results by those already actively contributing, and to raise awareness of the benefits of unifying theoretical frameworks among the wider computer science and software engineering communities.

We are extremely fortunate in having secured the participation of such a formidable panel of invited speakers as Ian Hayes, He Jifeng, Rick Hehner, Tony Hoare, Jeff Sanders and Jim Woodcock, who truly comprise the leading lights in the development and ongoing exploitation of the unifying theories of programming.

I'm pleased to express my appreciation for the sterling efforts of all members of the UTP 2006 programme committee, and also those of the additional reviewers, in reviewing all the submitted papers so conscientiously. I must express my particular appreciation to my Teesside colleagues Bill Stoddart and Frank Zeyda who supported me unfailingly in my role as Program Chair in many practical ways. Indeed, Frank's technical prowess in developing and maintaining the symposium's various websites proved absolutely invaluable. I'm also grateful for the sensible advice I invariably obtained from my good friend Andy Galloway of the University of York who was always willing to act as a discreet sounding board on various aspects of the organisation of the symposium.

Finally, I must of course thank all the sponsors of the symposium, but here I should particularly acknowledge the generous financial support of the University of Teesside's School of Computing, whose willingness and readiness to underwrite this symposium from the outset were in large part instrumental in its coming about at all.

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