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Hans-Joachim Bungartz · Dieter Kranzlmüller Volker Weinberg · Jens Weismüller Volker Wohlgemuth **Editors**

Advances and New Trends in Environmental Informatics

Managing Disruption, Big Data and Open Science









Editors
Hans-Joachim Bungartz
Department of Informatics
Technical University of Munich
Garching near Munich, Germany

Dieter Kranzlmüller
Leibniz Supercomputing Centre of the
Bavarian Academy of Sciences and
Humanities
Garching near Munich, Germany

Volker Weinberg
Leibniz Supercomputing Centre of the
Bavarian Academy of Sciences and
Humanities
Garching near Munich, Germany

Jens Weismüller Leibniz Supercomputing Centre of the Bavarian Academy of Sciences and Humanities Garching near Munich, Germany

Volker Wohlgemuth
Department of Engineering - Technology
and Life
HTW Berlin - University of Applied
Sciences
Berlin, Germany

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Preface

This book presents the main research results of the 32nd edition of the long-standing and established international and interdisciplinary conference series on environmental information and communication technologies (Envirolnfo 2018).

The conference was held on September 5–7, 2018 at the Leibniz Supercomputing Centre of the Bavarian Academy of Sciences and Humanities (LRZ) in Garching near Munich, Germany, organized by LRZ, under the patronage of the Technical Committee on Environmental Informatics of the Gesellschaft für Informatik e.V. (German Informatics Society—GI).

Combining and shaping national and international activities in the field of applied informatics and environmental informatics in making the world a better place for living, the EnviroInfo conference series aims at presenting and discussing the latest state-of-the-art development on information and communication technology (ICT) and environmental-related fields.

The focus of this year's conference was on six key topics and their relevance to Environmental Informatics:

- Efficient Computing
- Virtual Discoveries
- Managing Disruption
- Big Data
- Open Science
- · Distributed processing and sensing

These core topics are intended to provide continuity with previous EnviroInfo issues and topics that have long been close to the heart of the specialist community. On the other hand, we would also like to pick up the latest emerging trends.

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The editors would like to thank all the contributors to the conference and these conference proceedings. Special thanks also go to the members of the program and organizing committees. In particular, we would like to thank all those involved at the local organizer, LRZ. Last, but not least, a warm thank you to our sponsors that supported the conference.

Garching near Munich, Germany Berlin, Germany June 2018 Hans-Joachim Bungartz
Dieter Kranzlmüller
Volker Weinberg
Jens Weismüller
Volker Wohlgemuth

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About the Editors

Prof. Dr. Hans-Joachim Bungartz is a Professor of Informatics and Mathematics at Technical University of Munich and the Chair of Scientific Computing. He is a member of the Board of Directors of Leibniz Supercomputing Centre (LRZ) and Chairman of the German Research and Educational Network (DFN). His research interests are where computational science and engineering, scientific computing, and high-performance computing meet.

Prof. Dr. Dieter Kranzlmüller is a Professor of Computer Science at the Chair for Communication Systems and System Programming at Ludwig-Maximilians-Universität Munich and the Chairman of the Board of Directors of Leibniz Supercomputing Centre (LRZ). His research interests are parallel computing and computer graphics, with a special focus on parallel programming and debugging, cluster, and grid computing.

Dr. Volker Weinberg received his Ph.D. in Physics from the Free University of Berlin for his studies in the field of Lattice QCD. He is working as a Senior Researcher in the HPC group at the Leibniz Supercomputing Centre (LRZ). His research interests include parallel programming languages and new HPC architectures.

Dr. Jens Weismüller holds a Ph.D. in Geophysics from Ludwig-Maximilians-Universität Munich. He is a Senior Researcher of the Environmental Computing Team at the Leibniz Supercomputing Centre (LRZ). His research interests include algorithms and HPC implementations for hydrometeorologic as well as deep Earth applications.

Prof. Dr. Volker Wohlgemuth is a Professor for Industrial Environmental Informatics at the HTW Berlin, University of Applied Sciences. His research fields are material flow management, modeling and simulation, mobile computing, and environmental management information systems.