

INFORMATION TECHNOLOGY

**METHODS AND APPLICATIONS OF INFORMATICS AND
INFORMATION TECHNOLOGY**

EDITORS-IN-CHIEF

Stefan Conrad, Düsseldorf

Hubert Mara, Halle

Paul Molitor, Halle

Ricardo Usbeck, Hamburg

EDITORIAL BOARD

Andreas Butz, München

Görschwin Fey, Hamburg

Ulrich Flegel, München

Andreas Herkersdorf, München

Anne Koziol, Karlsruhe

Richard Lenz, Erlangen-Nürnberg

Ronald Maier, Innsbruck

Paul Müller, Kaiserslautern

Stefanie Rinderle-Ma, München

Falk Schreiber, Konstanz

HONORARY EDITOR

Heinz Zemanek[†], Wien

**DE GRUYTER
OLDENBOURG**

it – Information Technology is a strictly peer-reviewed scientific journal. It is the oldest German journal in the field of information technology. Today, the major aim of **it – Information Technology** is highlighting issues on ongoing newsworthy areas in information technology and informatics and their application. It aims at presenting the topics with a holistic view. It addresses scientists, graduate students, and experts in industrial research and development.

it – Information Technology is the organ of the faculties Technical Informatics and Computer Science in the Life Sciences of the German Informatics Society (GI – Gesellschaft für Informatik e.V.) and faculty Technical Informatics of the Information Technology Society (ITG) within the VDE (Verband der Elektrotechnik, Elektronik und Informationstechnik e.V.).

it – Information Technology was founded as **Elektronische Rechenanlagen** in 1959. To live up to the changes in the scientific and technological world it changed its name and shape several times. In 1986 it became **it – Informationstechnik** and **it+ti – Informationstechnik und Technische Informatik** in 1993. In 2002, the journal got the current name **it – Information Technology**.

ABSTRACTED/INDEXED IN ACM Digital Library · Baidu Scholar · Cabells Journalytics · CNKI Scholar (China National Knowledge Infrastructure) · CNPIEC: cnpLINKer · DBLP Computer Science Bibliography · Dimensions · EBSCO (relevant databases) · EBSCO Discovery Service · Engineering Village · Genamics JournalSeek · Google Scholar · Inspec · io-port.net · Japan Science and Technology Agency (JST) · J-Gate · JournalGuide · JournalTOCs · KESLI-NDSL (Korean National Discovery for Science Leaders) · Microsoft Academic · MyScienceWork · Naver Academic · Naviga (Softweco) · Primo Central (ExLibris) · Publons · QOAM (Quality Open Access Market) · ReadCube · SCImago (SJR) · SCOPUS · Semantic Scholar · Sherpa/RoMEO · Summon (ProQuest) · TDNet · TEMA Technik und Management · Ulrich's Periodicals Directory/ulrichsweb · WanFang Data · Web of Science: Emerging Sources Citation Index · WorldCat (OCLC) · Yewno Discover

ISSN 1611-2776 · e-ISSN 2196-7032

All information regarding notes for contributors, subscriptions, Open Access, back volumes and orders is available online at:
<http://www.degruyter.com/itit>

For receiving a TOC alert subscribe at www.degruyter.com/newsletter.

Editor and publisher thank all authors for their engagement. Papers and discussions are always welcome. For the submission of your paper please use our online portal: www.editorialmanager.com/itit.

JOURNAL COORDINATOR Birgit Zoglmeier, De Gruyter, Rosenheimerstr. 143, 81671 München, Germany. Tel.: +49 (0)89 76 902-426, Fax: +49 (0)30 260 05-184, E-mail: ITIT.Editorial@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS Markus Kügel, De Gruyter, Rosenheimer Str. 143, 81671 München, Germany. Tel.: +49 (0)89 76 902-424, E-mail: anzeigen@degruyter.com

© 2022 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING VTeX UAB, Lithuania

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim



Contents

Thematic Issue: Quantitative visual computing

Guest Editors: Falk Schreiber and Daniel Weiskopf

Host Editor: Paul Molitor

Editorial

Falk Schreiber and Daniel Weiskopf

Quantitative visual computing — 119

Articles

David Hägele, Christoph Schulz, Cedric Beschle, Hannah Booth, Miriam Butt, Andrea Barth, Oliver Deussen, and Daniel Weiskopf

Uncertainty visualization: Fundamentals and recent developments — 121

Francesco Chiossi, Johannes Zagermann, Jakob Karolus, Nils Rodrigues, Priscilla Balestrucci, Daniel Weiskopf, Benedikt Ehinger, Tiare Feuchtnner, Harald Reiterer, Lewis L. Chuang, Marc Ernst, Andreas Bulling, Sven Mayer, and Albrecht Schmidt

Adapting visualizations and interfaces to the user — 133

Johannes Zagermann, Sebastian Hubenschmid, Priscilla Balestrucci, Tiare Feuchtnner, Sven Mayer, Marc O. Ernst, Albrecht Schmidt, and Harald Reiterer

Complementary interfaces for visual computing — 145

Karsten Klein, Michael Sedlmair, and Falk Schreiber

Immersive analytics: An overview — 155

Quynh Quang Ngo, Frederik L. Dennig, Daniel A. Keim, and Michael Sedlmair

Machine learning meets visualization – Experiences and lessons learned — 169

Ying Zhang, Karsten Klein, Oliver Deussen, Theodor Gutschlag, and Sabine Storandt

Robust visualization of trajectory data — 181

