

Eurographics Workshop on Visual Computing for Biomedicine

October 6-7, 2008

Delft University of Technology, The Netherlands

Aims and Scope

Visual Computing for Biomedicine addresses the integration of state-of-the-art visualization and image analysis for application to biomedical research. Integrating visualization and image analysis brings with it particular challenges, but also yields new possibilities, especially when extended for application to the wide gamut of biomedical research topics, such as molecular imaging, quantitative longitudinal studies, pre- and intra-operative surgical guidance, and computer-aided diagnosis.

VCBM is unique in that it will bring together researchers and practitioners from visualization, image processing and (bio-)medicine. We expect to attract a number of attendees with (bio-)medical backgrounds, as well as from the surrounding academic medical centers. This will pose a unique opportunity to showcase the latest ideas from engineering and science, to get feedback from medical practitioners, and to explore new possibilities for cooperative research.

VCBM solicits the submission of original application-oriented research papers that advance the fusion of visualization and image analysis with imaging-based medicine and biomedical science. All papers should focus on a well-defined biomedical context, and should demonstrate a significant innovation or improvement in visual computing that addresses ongoing problems in that context.

Topics

Suggested topics for papers include, but are not limited to:

- Interactive segmentation and registration
- Computer-aided diagnosis and detection
- Facilitating medical research with visual computing
- Intervention and therapy planning (e.g. pre-operative surgical planning and radiation therapy planning)
- Intra-operative guidance for surgery
- Ultra-sound based planning and intra-operative guidance
- Visualization and Simulation for Surgical Training
- Coupled simulation and visualization
- Multi-field medical visualization and processing (multi-modality, structural + functional)
- Processing and visualization of advanced modalities
- Molecular imaging
- Perception-based studies for medical visualization
- Anatomical reconstruction from microscopy data
- Creation and visualization of biological atlases
- Ontology-based visualization
- Visualization methods for neurobiology, plant biology and developmental biology

Invited Speakers

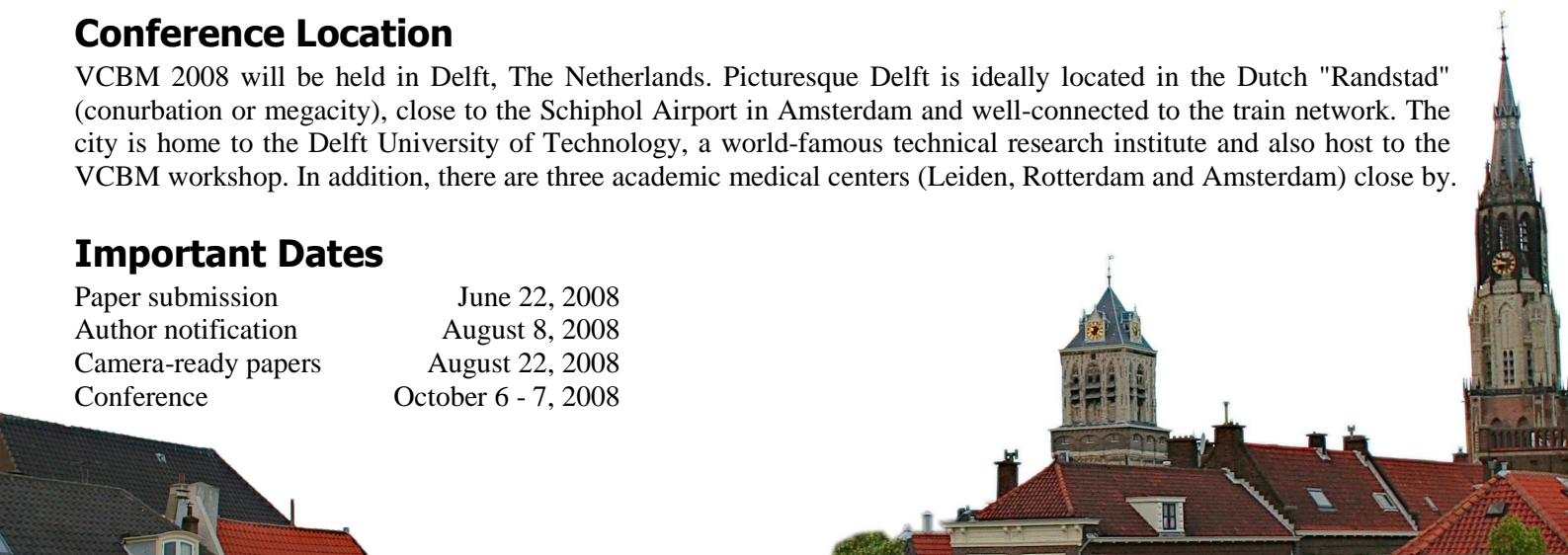
Prof. dr. Heinz-Otto Peitgen, president of MeVis research, and
Prof. dr. Nicolas Ayache, research director at INRIA.

Conference Location

VCBM 2008 will be held in Delft, The Netherlands. Picturesque Delft is ideally located in the Dutch "Randstad" (conurbation or megacity), close to the Schiphol Airport in Amsterdam and well-connected to the train network. The city is home to the Delft University of Technology, a world-famous technical research institute and also host to the VCBM workshop. In addition, there are three academic medical centers (Leiden, Rotterdam and Amsterdam) close by.

Important Dates

Paper submission	June 22, 2008
Author notification	August 8, 2008
Camera-ready papers	August 22, 2008
Conference	October 6 - 7, 2008



Workshop Co-chairs

Charl Botha	Delft University of Technology
Gordon Kindlmann	Harvard Medical School
Wiro Niessen	Erasmus Medical Centre
Bernhard Preim	University of Magdeburg

International Program Committee:

Dirk Bartz, ♦ Univ. Leipzig
Katja Bühler, ♦ VRVis Wien
Min Chen, ♦ University of Wales, Swansea
Herve Delingette, ♦ INRIA
Thomas Deserno (Lehmann), ♦ RWTH Aachen
James Duncan, ♦ Yale University
Thomas Ertl, ♦ University of Stuttgart
Bernd Fischer, ♦ University of Lübeck
Alejandro Frangi, ♦ Pompeu Fabra University
James Gee, ♦ University of Pennsylvania
Guido Gerig, ♦ University of Utah
Polina Golland, ♦ MIT
Eduard Gröller, ♦ Techn. Univ. Wien
Hans Hagen, ♦ University of Kaiserslautern
Horst Hahn, ♦ MeVis Research, Bremen
Heinz Handels, ♦ University of Hamburg
Peter Hastreiter, ♦ Univ. Erlangen
Joachim Hornegger, ♦ University of Erlangen
Arie Kaufmann, ♦ Stony Brook University, New York
David Laidlaw, ♦ Brown University
Boudewijn Lelieveldt, ♦ Leiden University
Patric Ljung, ♦ Siemens Corporate Research, Princeton
Lars Linsen, ♦ Jacobs-Univ. Bremen

Bill Lorensen
Torsten Möller, ♦ Simon Fraser University Vancouver
Klaus Müller, ♦ Stony Brook University, New York
Nassir Navab, ♦ Technical University of Munich
Josien Pluim, ♦ University of Utrecht
Gerd Reis, ♦ DFKI GmbH Kaiserslautern
Felix Ritter, ♦ MeVis Research, Bremen
Bart ter Haar Romeny ♦ TU Eindhoven
Timo Ropinski, ♦ Univ. Münster
Daniel Rueckert, ♦ Imperial College
Paul Suetens, ♦ KU Leuven
Gabor Székely, ♦ ETH Zürich
Ulf Tiede, ♦ University Hamburg
Ragini Verma, ♦ University of Pennsylvania
Anna Vilanova, ♦ TU Eindhoven
Frans Vos, ♦ TU Delft
Carl-Fredrik Westin, ♦ Harvard Medical School
Ross Whitaker, ♦ University of Utah
Ivo Wolf, ♦ DKFZ Heidelberg
Anders Ynnermann, ♦ Norrköping
Terry Yoo, ♦ NIH/NLM
Stefan Zachow, ♦ Zuse-Institut Berlin

Publication Information

Accepted papers will be presented at the workshop and will appear in the EG-published conference proceedings. A small number of excellent papers will be recommended for publication in the EG Journal Computer Graphics Forum.

Contact Information

For more information please visit <http://vcbm.org/> or contact:

Charl Botha	c.p.botha@tudelft.nl
Bernhard Preim	bernhard@isg.cs.uni-magdeburg.de

Sponsors



The DFG's International Research
Training Group Visualization of
Large and Unstructured Data Sets
<http://www.irtg.uni-kl.de/>



Nederlandse Organisatie voor Wetenschappelijk Onderzoek

