



IWCIA 2014, Brno, Czech Republic

16th International Workshop on Combinatorial Image Analysis

May 28 – 30, 2014

<http://iwcia2014.fme.vutbr.cz/>



The International Workshop on Combinatorial Image Analysis will be hosted by Brno University of Technology (BUT), Faculty of Mechanical Engineering. Researchers from all areas of image analysis and its applications are cordially invited to participate.

Scope:

Image analysis is a scientific discipline providing theoretical foundations and methods for solving problems appearing in a wide range of areas, as diverse as medicine, robotics, defence, and security. As a rule, the processed data are discrete; therefore, the "discrete approach" to image analysis appears to be a natural one and has an increasing importance. It is based on studying combinatorial properties of the considered digital data sets. Combinatorial image analysis often features various advantages (in terms of efficiency and accuracy) over the more traditional approaches based on continuous models requiring numeric computation.

General Topics:

- Combinatorial problems in the discrete plane and space related to image analysis; lattice polygons and polytopes
- Discrete/combinatorial geometry and topology and their use in image analysis
- Digital geometry of curves and surfaces
- Tilings and patterns; combinatorial pattern matching
- Methods for image compression
- Discrete tomography
- Applications of integer programming, linear programming, and computational geometry to problems of image analysis
- Parallel architectures and algorithms for image analysis
- Fuzzy and stochastic image analysis
- Grammars and models for image or scene analysis and recognition; cellular automata
- Mathematical morphology and its applications to image analysis
- Segmentation, reconstruction, tracking and motion analysis

Special Sessions:

- Computational Bio-Imaging and Visualization
- Imaging in Physics and Astronomy

Important Dates:

Full paper submission	Nov 30, 2013
Notif. of acceptance	Dec 30, 2013
Final papers	Jan 20, 2014
Early registration	Jan 30, 2014
Regular registration	Mar 1, 2014

Invited Speakers:

Valentin E. Brimkov (SUNY)
Shadia Habbal (University of Hawaii)
Gabor Herman (CUNY)

General Chair:

Josef Šlapal (BUT)

Program and Publication Chair:

Reneta Barneva (SUNY)

Steering Committee:

Valentin E. Brimkov
Gabor Herman
Kostadin Koroutchev
Petra Wiederhold

Contact

Institute of Mathematics
Faculty of Mechanical Engineering
Brno University of Technology
Kolejní 4
612 00 Brno
Czech Republic
E-mail: iwcia2014@fme.vutbr.cz



BRNO UNIVERSITY OF TECHNOLOGY
FACULTY OF MECHANICAL
ENGINEERING