2017 International Conference on 3D Immersion (IC3D 2017)

Brussels, Belgium
11-12 December 2017

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stereopsia

2017 International Conference on 3D Immersion (IC3D 2017)
Advance program & schedule

Technically co-sponsored by the IEEE Signal Processing Society
Archived in IEEE Xplore

Each presentation duration (e.g. 17 min) include the time for optional Q&A and
a 2 min transition to next speaker or break.
Speakers are underlined.

The organizers reserve the right to make changes to this program at any time.

All oral sessions are at BOZAR,
room "**Le Studio**" for all sessions except for last, & room "**Salle M**" for last session.
There are no posters this year;
All coffee and lunch breaks are at BOZAR, in Exhibition area.

DAY I – Monday, 11 December 2017 – IC3D

At BOZAR

AM

08:00 - 18:00   **Welcome and registration** (at BOZAR)

09:00 - 09:02   (02 min) **Session I-0** (at BOZAR, "Le Studio")

- (02 min) Welcome address, and overview of Stereopsia, IC3D, and the day's program,
  Jacques G. Verly (University of Liège, Belgium)

09:02 - 10:27   (85 min) **Session I-1** (at BOZAR, "Le Studio")

- Chairs: Quentin Massoz (University of Liège, Belgium),
        Jacques G. Verly (University of Liège, Belgium)

- (17 min) Cinema as large as life: large-scale light field cinema system,
  Peter A. Kara, Maria G. Martini (Kingston University, UK), Zsolt Nagy, Attila Barsi (Holografika,
  Hungary)
- (17 min) Modeling depth uncertainty of desynchronized multi-camera systems,
  Elijs Dima, Mårten Sjöström, Roger Olsson (Mid Sweden University, Sweden)
- (17 min) Half-occluded regions: the key to detecting a diverse array of defects in S3D imagery,
  Jonathan Bouchard, James J. Clark (McGill University, Canada)

- (17 min) Performance evaluation of patterns for image-based 3D model reconstruction of textureless objects,
  Jahanzeb Hafeez (Kwangwoon University, Korea), Alaric Hamacher (Kwangwoon University, Korea; Gachon University, Korea), SoonChul Kwon, SeungHyun Lee (Kwangwoon University, Korea)
- (17 min) DOM2AFrame: putting the web back in WebVR,
  Robin Marx, Sander Vanhove (UHasselt, Belgium), Wouter Vanmontfort (Androme, Belgium), Peter Quax, Wim Lamotte (UHasselt, Belgium)

10:30 - 11:00   (30 min) **Coffee break** (at BOZAR, Exhibition area)

11:00 - 12:25   (85 min) **Session I-2** (at BOZAR, "Le Studio")

- Chairs: Anaïs Halin (University of Liège, Belgium),
           Jacques G. Verly (University of Liège, Belgium)

- (17 min) Table-top electronic holographic display satisfying stereopsis along 360 degrees,
  Keehoon Hong, Yongjun Lim, Hayan Kim, Minsik Park, Jinwoong Kim (Electronics and Telecommunications Research Institute (ETRI), Korea)
- (17 min) Ray tracing for HoloVizio light field displays,
  Oleksii Doronin, Attila Barsi (Holografika, Hungary), Peter A. Kara, Maria G. Martini (Kingston University, UK)
- (17 min) The influence of 3D video artifacts on discomfort of 302 viewers,
  Anastasia Antsiferova, Dmitriy Vatolin (Lomonosov Moscow State University, Russia)
- (17 min) Anisotropic energy accumulation for stereoscopic image seam carving,
  Yuqing Lin (Fuzhou University, China), Yuzhen Niu (Fuzhou University, China; Fujian Provincial Key Lab of the Network Computing and Intelligent Information Processing, China), Shuai Zhang, Junhao Chen (Fuzhou University, China)
- (17 min) HRTF personalization based on weighted sparse representation of anthropometric features,
  Mo Zhu, Muhammad Shahnawaz, Augusto Sarti (Politecnico di Milano, Italy)

NOON

12:30 - 13:30   (60 min) **Lunch break** (at BOZAR, Exhibition area, via vouchers)

PM

13:30 - 14:55   (85 min) **Session I-3** (at BOZAR, "Le Studio")

- Chairs: Quentin Massoz (University of Liège, Belgium),
           Jacques G. Verly (University of Liège, Belgium)

- (17 min) A framework for quality control in cinematic VR based on Voronoi patches and saliency,
  Simone Croci, Sebastian Knorr (Trinity College Dublin, Ireland), Lutz Goldman, (TU Berlin, Germany), Aljosa Smolic (Trinity College Dublin, Ireland)
- (17 min) Achieving high angular resolution via view synthesis: quality assessment of 3D content on super Multiview lightfield display,
  Roopak R. Tamboli, Balasubramanyam Appina, Sumohana S. Channappayya, Soumya Jana (Indian Institute of Technology Hyderabad, India)
- (17 min) A markerless 3D tracking approach for augmented reality applications,
  Michiel Vlaminck, Hiep Luong, Wilfried Philips (Ghent University, Belgium)
- (17 min) An exploration of factors that drive vertical vergence movements across the visual field,
  Ashleigh L. Harrold, Philip M. Grove (The University of Queensland, Australia)

- (17 min) A low-cost lighthouse-based virtual reality head tracking system,
  Adrian K. T. Ng, Leith K. Y. Chan, Henry Y. K. Lau (University of Hong Kong, China)

15:00 - 15:30   (30 min) **Coffee break** (at BOZAR, Exhibition area)

15:30 - 17:12   (102 min) **Session I-4** (at BOZAR, "Le Studio")

- Chairs: Anaïs Halin (University of Liège, Belgium),
              Jacques G. Verly (University of Liège, Belgium)

- (17 min) 3D scene model based frame prediction in video coding,
  Hossein Bakhshi Golestani, Mathias Wien, Jens-Rainer Ohm (RWTH Aachen University, Germany)
- (17 min) Fovography: a naturalistic imaging media,
  Alistair Burleigh, Robert Pepperell, Nicole Ruta (Cardiff Metropolitan University, UK)
- (17 min) Color correction for stereoscopic image based on matching and optimization,
  Xiaohua Zheng (Fuzhou University, China), Yuzhen Niu (Fuzhou University, China; Fujian Provincial
  Key Lab of the Network Computing and Intelligent Information Processing, China), Junhao Chen
  (Fuzhou University, China), Yuzhong Chen (Fuzhou University, China; Fujian Provincial Key Lab of the
  Network Computing and Intelligent Information Processing, China)
- (17 min) Towards display-independent light-field formats,
  Aron Csernaszky, Attila Barsi (Holografika, Hungary),
  Peter A. Kara, Maria G. Martini (Kingston University, UK)
- (17 min) Low-cost plenoptic camera with off-the-shelf components,
  Siham Boukhris, Daniele Bonatto, Gauthier Lafruit (Université Libre de Bruxelles, Belgium)
- (17 min) Gait recognition based on 3D Holoscopic Gait Energy Image,
  Hakan Ozen (Brunel University London, UK; Middle East Technical University, Turkey), Nikolaos V.
  Boulgouris, Rafiq Swash (Brunel University London, UK)

17:12   **End of conference for DAY I**

Evening (up to all IC3D attendees)

18:00 - 21:00   **VR meetup** (at BOZAR, Exhibition area)

DAY II – Tuesday, 12 December 2017 – IC3D

At BOZAR

AM

08:30 - 18:00   **Welcome and registration** (at BOZAR)

09:00 - 09:02   (02 min) **Session II-0** (at BOZAR, "Le Studio")

- (02 min) Welcome address, and overview of 3D Stereo MEDIA, IC3D, and the day's program,
  Jacques G. Verly (University of Liège, Belgium)

09:02 - 10:27   (85 min) **Session II-1** (at "Le Studio")

- Chairs: Quentin Massoz (University of Liège, Belgium),
              Jacques Verly (University of Liège, Belgium)

- (17 min) Predicting head trajectories in 360° virtual reality videos,
  A. Deniz Aladagli, Erhan Ekmekcioglu, Ahmet Kondoz (Loughborough University London, UK), Dmitri Jarnikov (Eindhoven University of Technology, The Netherlands)
- (17 min) The interdependence of spatial and angular resolution in the quality of experience of light field visualization,
  Peter A. Kara (Kingston University, UK; Budapest University of Technology and Economics, Hungary), Aron Cserkaszky, Attila Barsi, Tamas Papp (Holografika, Hungary), Maria G. Martini (Kingston University, UK), Laszlo Bokor (Budapest University of Technology and Economics, Hungary)
- (17 min) Omnidirectional FTV,
  Masayuki Tanimoto (Nagoya Industrial Science Research Institute, Japan), Hirokuni Kurokawa (University of Aizu, Japan)
- (17 min) Augmented film narrative by use of non-photorealistic rendering,
  Victor Fajnzylber, Larry Gonzalez, Pedro Maldonado (University of Chile, Chile), Milan Magdics (Budapest University of Technology and Economics, Hungary), Rafael Del Villar, Rodrigo Yanez, Samuel Madariaga (University of Chile, Chile), Mateu Sbert (Tianjin University, China)
- (17 min) 3D immersive karaoke for the learning of foreign language pronunciation,
  Georgios Athanasopoulos, Kaori Hagihara, Alessandro Cierro, Robin Guérit, Julie Chatelain, Céline Lucas, Benoît Macq (Université Catholique de Louvain, Belgium)

10:30 - 11:00   (30 min) **Coffee break** (at BOZAR, Exhibition area)

11:00 - 12:28   (60 min) **Session II-2** (at BOZAR, "Salle M") – NOTE CHANGE OF ROOM!

**Joint session of Steropsia's
Scientific Conference (IC3D) and Professional Conference (PCON)**

Introduction

- (02 min) Welcome address, and overview of Stereopsia & PCON, and the day's program,
  Jacques G. Verly (University of Liège, Belgium)

Keynote presentation

- (58 min) A new grammar of storytelling for the digital age,
  Frank rose (Columbia University, USA)

Frank Rose is the author of "The Art of Immersion", a member of the Columbia Digital Storytelling Lab, and the faculty director of the Columbia University executive education seminar Strategic Storytelling. A graduate of the journalism school at Washington & Lee University, he has been a contributing editor at Wired and Esquire and a contributing writer at Fortune and Premiere. He currently writes for The New York Times and The Wall Street Journal.

Storytelling for immersive media (VR,…) - Part 1

- (12 min) A concept of narration for the immersive paradigm, (TBD)
  Miłosz Hermonowicz (Freelance Stereographer, Poland)
- (18 min) Storytelling for immersive games, (TBD)
  Björn-Olav Dozo (University of Liège, Belgium)

- (02 min) Closing remarks for IC3D,
  Jacques G. Verly (University of Liège, Belgium)

NOON

12:30 - 13:30   (60 min) **Lunch break** (at BOZAR, Exhibition area, with vouchers)

PM

13:30   **End of IC3D 2017**

Thank you for your participation!

For attendees of Professional Conference (PCON)

Tuesday 12 Dec 2017 pm – BOZAR, "Salle M"

Evening

18:30 - 20:00   **Networking reception,** at City Hall of Brussels – by reservation only

END