



**Date: Wednesday, 07/Jun/2017**

<b>8:00am - 6:00pm</b>	<b>Registration desk</b>
seminar room 1.001 (Gæstekantinen)	
<b>9:00am - 9:15am</b>	<b>Opening</b>
seminar room 1.001 (Gæstekantinen)	
<b>9:15am - 10:15am</b>	<b>Keynote 1: 3D Imaging for Research and Industry - from lab to large scale facilities</b>
seminar room 1.001 (Gæstekantinen)	by Camilla Trinderup, PhD, The Imaging Center at DTU - <a href="http://www.imaging.dtu.dk/">http://www.imaging.dtu.dk/</a>
<b>10:15am - 10:30am</b>	<b>Coffee break</b>
seminar room 1.001 (Gæstekantinen)	
<b>10:30am - 12:30pm</b>	<b>Session 1: Acquisition systems and coding</b>
seminar room 1.001 (Gæstekantinen)	
<b>12:30pm - 1:30pm</b>	<b>Lunch</b>
seminar room 1.001 (Gæstekantinen)	
<b>1:30pm - 3:30pm</b>	<b>Session 2: 3D displays and visualization</b>
seminar room 1.001 (Gæstekantinen)	
<b>3:30pm - 3:45pm</b>	<b>Coffee break</b>
seminar room 1.001 (Gæstekantinen)	
<b>3:45pm - 5:45pm</b>	<b>Session 3: Evaluating of 3D media</b>
seminar room 1.001 (Gæstekantinen)	
<b>6:00pm - 7:00pm</b>	<b>Welcome reception: AAU Copenhagen campus, AC Meyers 15, 2450 Copenhagen (same to conference venue)</b>

**Date: Thursday, 08/Jun/2017**

<b>8:00am - 5:00pm</b>	<b>Registration desk</b>
seminar room 1.001 (Gæstekantinen)	
<b>9:15am - 10:15am</b>	<b>Keynote 2: Why 3D movies are so painful</b>
seminar room 1.001 (Gæstekantinen)	by Dmitriy S. Vatolin, Graphics and Media Lab (GML) Department of Computational Mathematics and Cybernetics of M.V. Lomonosov Moscow State University - <a href="http://graphics.cs.msu.ru/en/people/staff/dvatolin">http://graphics.cs.msu.ru/en/people/staff/dvatolin</a>
<b>10:15am - 10:30am</b>	<b>Coffee break</b>
seminar room 1.001 (Gæstekantinen)	
<b>10:30am - 12:30pm</b>	<b>Session 4: 3D Applications and services</b>
seminar room 1.001 (Gæstekantinen)	
<b>12:30pm - 1:30pm</b>	<b>Lunch</b>
seminar room 1.001 (Gæstekantinen)	
<b>1:30pm - 3:30pm</b>	<b>Session 5: 3D in VR</b>
seminar room 1.001 (Gæstekantinen)	
<b>3:30pm - 3:45pm</b>	<b>Coffee break</b>
seminar room 1.001 (Gæstekantinen)	
<b>3:45pm - 5:00pm</b>	<b>Round Table: The future of 3D - What is next?</b>



seminar room 1.001 (Gæstekantinen)	Open Discussion on the future of 3D Media: New directions and applications.
<b>7:00pm - 9:00pm</b>	<b>Conference Dinner:</b> Cock's & Cows SP34, Sankt Peders Stræde 38, 1455 Copenhagen (roof garden of Hotel SP34)
<b>Date: Friday, 09/Jun/2017</b>	
<b>9:00am - 2:00pm</b>	<b>Registration desk</b>
seminar room 1.001 (Gæstekantinen)	
<b>9:15am - 10:15am</b>	<b>Keynote 3: Creating and Accessing 3D Content</b> by Dr. Henrik Aanaes, associate professor in computer vision at the Technical University of Denmark - <a href="http://people.compute.dtu.dk/aanes/">http://people.compute.dtu.dk/aanes/</a>
seminar room 1.001 (Gæstekantinen)	
<b>10:15am - 10:30am</b>	<b>Coffee break</b>
seminar room 1.001 (Gæstekantinen)	
<b>10:30am - 1:00pm</b>	<b>Session 6: 3D sensors and depth cameras</b>
seminar room 1.001 (Gæstekantinen)	
<b>1:00pm - 1:10pm</b>	<b>Closing</b>
seminar room 1.001 (Gæstekantinen)	

## Presentations

### Session 1: Acquisition systems and coding

*Time:* Wednesday, 07/Jun/2017: 10:30am - 12:30pm · *Location:* seminar room 1.001 (Gæstekantinen)

#### Acquisition system for dense lightfield of large scenes

**Matthias Ziegler, Ron op het Veld, Joachim Keinert, Frederik Zilly**

Fraunhofer IIS, Germany; [matthias.ziegler@iis.fraunhofer.de](mailto:matthias.ziegler@iis.fraunhofer.de)

#### ROBUST DISPARITY ESTIMATION ON SPARSE SAMPLED LIGHT FIELD IMAGES

**Yan Li, Gauthier Lafruit**

Université Libre de Bruxelles, Belgium; [vali@ulb.ac.be](mailto:vali@ulb.ac.be)

#### MIXED-RESOLUTION HEVC BASED MULTIVIEW VIDEO CODEC

**Bruhanth Mallik, Akbar Sheikh Akbari, Ah-Lian Kor**

Leeds Beckett University, United Kingdom; [b.mallik6347@student.leedsbeckett.ac.uk](mailto:b.mallik6347@student.leedsbeckett.ac.uk)

#### Lossless compression of subaperture images using context modeling

**Ionut Schiopu<sup>1</sup>, Moncef Gabbouj<sup>1</sup>, Atanas Gotchev<sup>1</sup>, Miska M. Hannuksela<sup>2</sup>**

<sup>1</sup>Tampere University of Technology, Finland; <sup>2</sup>Nokia Technologies, Finland; [ionut.schiopu@tut.fi](mailto:ionut.schiopu@tut.fi)

#### Simulation of Microlens Array Based Plenoptic Capture Utilizing Densely Sampled Light Field

**Ugur Akpinar, Erdem Sahin, Atanas Gotchev**

Tampere University of Technology; [atanas.gotchev@tut.fi](mailto:atanas.gotchev@tut.fi)



## Session 2: 3D displays and visualization

*Time:* Wednesday, 07/Jun/2017: 1:30pm - 3:30pm · *Location:* seminar room 1.001 (Gæstekantinen)

### EXTREME FIELD-OF-VIEW FOR HEAD-MOUNTED DISPLAYS

**Ismo Rakkolainen<sup>1</sup>, Roope Raisamo<sup>1</sup>, Matthew Turk<sup>2</sup>, Tobias Höllerer<sup>2</sup>, Karri Palovuori<sup>3</sup>**

<sup>1</sup>University of Tampere; <sup>2</sup>University of California, Santa Barbara; <sup>3</sup>Tampere University of Technology; [ismo.rakkolainen@uta.fi](mailto:ismo.rakkolainen@uta.fi)

### COLOR MOIRÉ REDUCTION AND RESOLUTION ENHANCEMENT TECHNIQUE FOR INTEGRAL THREE-DIMENSIONAL DISPLAY

**Hisayuki Sasaki, Naoto Okaichi, Hayato Watanabe, Masanori Kano, Masahiro Kawakita, Tomoyuki Mishina**  
Japan Broadcasting Corporation (NHK), Japan; [sasaki.h-ey@nhk.or.jp](mailto:sasaki.h-ey@nhk.or.jp)

### Automatic 2D to Stereoscopic Video Conversion for 3D TVs

**Xichen Zhou, Bipin C. Desai, Charalambos Poullis**  
Concordia University, Canada; [charalambos@poullis.org](mailto:charalambos@poullis.org)

### WEIGHTED REGULARIZED LAPLACIAN INTERPOLATION FOR CONSOLIDATION OF HIGHLY-INCOMPLETE TIME VARYING POINT CLOUDS

**Gerasimos Arvanitis, Aris Lalos, Konstantinos Moustakas, Nikos Fakotakis**  
University of Patras, Greece; [arvanitis@ece.upatras.gr](mailto:arvanitis@ece.upatras.gr)

### Accurate multi-view stereo by selective expansion

**Hu Tian, Fei Li**

Fujitsu Research&Development Center Co., Ltd., China, People's Republic of; [tianhu@cn.fujitsu.com](mailto:tianhu@cn.fujitsu.com)

## Session 3: Evaluating of 3D media

*Time:* Wednesday, 07/Jun/2017: 3:45pm - 5:45pm · *Location:* seminar room 1.001 (Gæstekantinen)

### Automatic Subjective Quality Estimation of 3D Stereoscopic Videos: NR-RR Approach

**Hossein Malekmohamadi**

De Montfort University, United Kingdom; [hossein.malekmohamadi@dmu.ac.uk](mailto:hossein.malekmohamadi@dmu.ac.uk)

### A DEPTH PERCEPTION EVALUATION METRIC FOR IMMERSIVE 3D VIDEO SERVICES

**Gokce Nur Yilmaz**

Kirikkale University, Turkey; [nur.gkc@gmail.com](mailto:nur.gkc@gmail.com)

### READ-THE-GAME SKILL EVALUATION BY ANALYZING HEAD ORIENTATION IN IMMERSIVE VR

**César Daniel Rojas Ferrer<sup>1</sup>, Itaru Kitahara<sup>2</sup>, Yoshinari Kameda<sup>2</sup>**

<sup>1</sup>Graduate School of Systems and Information Engineering, University of Tsukuba; <sup>2</sup>Center for Computational Sciences, University of Tsukuba; [s1620853@u.tsukuba.ac.jp](mailto:s1620853@u.tsukuba.ac.jp)

### VIEWPORT-DEPENDENT DELIVERY SCHEMES FOR STEREOSCOPIC PANORAMIC VIDEO

**Ramin Ghaznavi-Youvalari<sup>1</sup>, Miska Hannuksela<sup>1</sup>, Alireza Aminlou<sup>1</sup>, Moncef Gabbouj<sup>2</sup>**

<sup>1</sup>Nokia Technologies, Finland; <sup>2</sup>Tampere University of Technology; [ramin.ghaznavi-youvalari@nokia.com](mailto:ramin.ghaznavi-youvalari@nokia.com)

### Smoothly Switching Method of Asynchronous Multi-View Videos Using Frame Interpolation

**Hidehiko Shishido, Aoi Harazaki, Yoshinari Kameda, Itaru Kitahara**

University of Tsukuba, Japan; [s1330212@gmail.com](mailto:s1330212@gmail.com)



## Session 4: 3D Applications and services

*Time:* Thursday, 08/Jun/2017: 10:30am - 12:30pm · *Location:* seminar room 1.001 (Gæstekantinen)

### SOFTWARE TOOLS FOR ANALYSIS AND VISUALIZATION OF THE ANTIKYTHERA MECHANISM

**Eleftherios Anastasovitis<sup>2,1</sup>, Manos Roumeliotis<sup>2</sup>**

<sup>1</sup>Centre for Research and Technology Hellas, Greece; <sup>2</sup>University of Macedonia, Greece; [manos@uom.gr](mailto:manos@uom.gr)

### Physical Forces Aware Aging Simulation on Cultural Heritage Artifacts

**Evdoxia Taka, Konstantinos Papachristou, Anastasios Drosou, Nikolaos Dimitriou, Dimitrios Tzouvaras**

CERTH/ITI, Greece; [kostas.papachristou@iti.gr](mailto:kostas.papachristou@iti.gr)

### Caravaggio in Rome: a QoE-based proposal for a Virtual Gallery

**Chiara Di Stefano, Federica Battisti**

Roma Tre University, Italy; [federica.battisti@uniroma3.it](mailto:federica.battisti@uniroma3.it)

### DIGIART: BUILDING NEW 3D CULTURAL HERITAGE WORLDS

**Eleftherios Anastasovitis, Dimitrios Ververidis, Spiros Nikolopoulos, Ioannis Kompatsiaris**

Centre for Research and Technology Hellas, Greece; [anastasovitis@iti.gr](mailto:anastasovitis@iti.gr)

### Collaborative 3D Accessories Customization and Trading through Web Interface

**Chin Pok Hui<sup>1</sup>, Wai-Man Pang<sup>1</sup>, Vane-Ing Tian<sup>2</sup>**

<sup>1</sup>Caritas Institute of Higher Education, Hong Kong S.A.R. (China); <sup>2</sup>The Open University of Hong Kong; [wmpang@ieee.org](mailto:wmpang@ieee.org)

## Session 5: 3D in VR

*Time:* Thursday, 08/Jun/2017: 1:30pm - 3:30pm · *Location:* seminar room 1.001 (Gæstekantinen)

### Design of an Annotation System for taking notes in Virtual Reality

**Damien Clergeaud<sup>1,2</sup>, Pascal Guitton<sup>2,1</sup>**

<sup>1</sup>INRIA, France; <sup>2</sup>Université de Bordeaux, France; [damien.clergeaud@inria.fr](mailto:damien.clergeaud@inria.fr)

### VISUAL REALISM AND PRESENCE IN A VIRTUAL REALITY GAME

**Jonatan Hvass, Oliver Larsen, Kasper Vendelbo, Niels Nilsson, Rolf Nordahl, Stefania Serafin**

Aalborg University Copenhagen, Denmark; [ncn@create.aau.dk](mailto:ncn@create.aau.dk)

### Wireless Controller for Interactive Virtual Reality Games

**Seyedmahdi Kazempourradi, Seyfettin Onurhan Ozturk, Murat Berke Erdemli, Burak Gulerce, Mahmut Sami Yazici, Levent Ozmen, Can Hakan Dagidir, Sidem Isil Tuncer, Erdem Ulusoy, Hakan Urey**

Koc University, Electrical Engineering Department, Optical Microsystems Laboratory, Turkey; [mkazempour14@ku.edu.tr](mailto:mkazempour14@ku.edu.tr)

### Body-part tracking from partial-view depth data

**Manolis Vasileiadis, Dimitris Giakoumis, Sotiris Malassiotis, Ioannis Kostavelis, Dimitrios Tzouvaras**

Information Technologies Institute, Centre for Research and Technology Hellas, Greece; [tzouvaras@iti.gr](mailto:tzouvaras@iti.gr)

### A Client-Server Architecture for Real-time View-Dependent Streaming of Free-Viewpoint Video

**Jonas Scheer<sup>1</sup>, Carlos Fernández de Tejada Quemada<sup>1</sup>, Oliver Grau<sup>2</sup>**

<sup>1</sup>Saarland University, Intel Visual Computing Institute; <sup>2</sup>Intel; [jonas.scheer@intel-vci.uni-saarland.de](mailto:jonas.scheer@intel-vci.uni-saarland.de)



## Session 6: 3D sensors and depth cameras

Time: Friday, 09/Jun/2017: 10:30am - 1:15pm · Location: seminar room 1.001 (Gæstekantinen)

### THE USE OF ADVANCED IMAGING TECHNOLOGY IN WELFARE TECHNOLOGY SOLUTIONS – SOME ETHICAL ASPECTS

**Kari K. Lilja<sup>1,3</sup>, Jari Palomäki<sup>2</sup>**

<sup>1</sup>Tampere University of Technology, Finland; <sup>2</sup>Tampere University of Technology, Finland; <sup>3</sup>Satakunta University of Applied Sciences; [kari.lilja@kolumbus.fi](mailto:kari.lilja@kolumbus.fi)

### SpAtIAL: A Sensor based Framework to Support Affective Learning

**Anastasios Karakostas<sup>1</sup>, Dimitrios Ververidis<sup>2</sup>, Spiros Nikolopoulos<sup>3</sup>, Ioannis Kompatsiaris<sup>4</sup>**

<sup>1</sup>Centre for Research and Technology Hellas, Greece; <sup>2</sup>Centre for Research and Technology Hellas, Greece; <sup>3</sup>Centre for Research and Technology Hellas, Greece; <sup>4</sup>Centre for Research and Technology Hellas, Greece; [akarakos@iti.gr](mailto:akarakos@iti.gr)

### DETECTING WALKABLE PLANE AREAS BY USING RGB-D CAMERA AND ACCELEROMETER FOR VISUALLY IMPAIRED PEOPLE

**Kenta Imai<sup>1</sup>, Itaru Kitahara<sup>2</sup>, Yoshinari Kameda<sup>2</sup>**

<sup>1</sup>Graduate School of Systems and Information Engineering, University of Tsukuba; <sup>2</sup>Center for Computational Sciences, University of Tsukuba; [s1620749@u.tsukuba.ac.jp](mailto:s1620749@u.tsukuba.ac.jp)

### Adaptive Filter for Denoising 3D Data captured Depth Sensors

**Somar Boubou, Tatsuo Narikiyo, Michihiro Kawanishi**

Toyota Technological Institute, Japan; [somar.boubou@gmail.com](mailto:somar.boubou@gmail.com)

### Depth camera driven mobile robot for human localization and following

**N. Skordilis, L. Nalpantidis, G. Triantafyllidis**

AAU-CPH, Denmark; [gt@create.aau.dk](mailto:gt@create.aau.dk)

### Stereo Camera Upgraded to Equal Baseline Multiple Camera Set (EBMCS)

**Adam L. Kaczmarek**

Gdansk University of Technology, Faculty of Electronics, Telecommunications and Informatics, Poland; [adam.l.kaczmarek@eti.pg.gda.pl](mailto:adam.l.kaczmarek@eti.pg.gda.pl)