## PROGRAM

# BEYOND 3D-FESTIVAL

03rd - 06th OCTOBER 2013 KARLSRUHE





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03rd - 06th OCTOBER 2013 KARLSRUHE

From October 3 - 6, the city of Karlsruhe together with the ZKM | Center for Art and Media and the HfG | University of Arts and Design Karlsruhe are hosting the international 3D-Festival BEYOND for the third time.

Further information on all events: www.beyond-festival.com



Over the coming decades new technologies will alter our lives and the way in which we perceive it beyond the imaginable. BEYOND is the point in space-time in which conspirators of science, technology and art openly plot for the 3rd

Industrial and Cultural Revolution, and for environmentally sustainable abundance.

This time, BEYOND not only explores the dynamic 3D screen, it moves on from the bits to the atoms and incorporates 3Dprinting and digital cloud-distribution. What began as a 3D festival becomes more BEYOND with each new year. Welcome to the future!

Prof. Ludger Pfanz Head of BEYOND 3D-Festival



One of the tendencies in cinematic imagination consists in the imitation of natural perception, namely, perception by way of our natural sensory organs. At first, cinema was black-andwhite. Color and sound were still missing. In the first half of the twentieth century this deficit was remedied, and color film with sound came into being. Experiments for generating spatial depth were also initiated during the second half of the century. A solution was also found for this task. On the other hand, it was clear from the outset that the cinematographic imagination would find a way of going beyond natural perception and the realistic world. The cine-eye is a machine (Dsiga Wertow, Man with a Movie Camera, 1929, and Cine-Eye, 1924), which made it possible to see the world differently than is possible with the natural eye, and thereby to create other worlds.

The 3D festival, BEYOND, seeks to present the current developments of both tendencies as a convergence. New pictures of life, living pictures based on a perfect imitation of life (Imitation of Life, Douglas Sirk, 1959) are to be created. In addition, the festival showed that following film, television likewise intends to conquer the third dimension. In fact, television has Foto: ONUP



outstripped cinema as a medium of distribution by way of its ability to broadcast from its transmitter. Now, cinema must try to find new forms of distribution, on the Internet, for example. For this reason we now have the first ever presentation of models of "digital distribution" (P. W.), such as Cinema Cloud.

BEYOND means, presenting the cinematographic imagination beyond the threshold of the twentieth century.

**Prof. Peter Weibel** Chairman and CEO Center for Art and Media Karlsruhe



What is 3D? Is it art, science or technology? It's all these and much more: It is a rich and vital source of innovation.

Innovation is what we desperately need today. This is why I am more than happy to welcome BEYOND – a festival which demonstrates the astonishing potential of 3D. For anyone seeking information on the latest developments in the field of 3D, Karlsruhe is the place to go! From October 3 – 6, BEYOND features an impressively large variety of presentations, films and workshops. Widely renowned experts from almost all regions of the world gather for a symposium, and a supporting program, including concerts, exhibitions and performances that will delight its visitors. In which fields is 3D technology used today and where will it be used tomorrow? The 3D EXPO provides the answer: This event, which enriches BEYOND while taking place, brings together companies and research institutions. Each demonstrates just how vast the field of practical 3D applications really is, ranging as it does from medicine through urban planning and environmental protection.

I am very keen to discover the outcome of the BEYOND-competition: Two awards will be granted in the categories of short film and documentary film. Fifty-five films have been submitted to the competition, each contributing a masterpiece. No easy job for the international jury!

But the most inspiring part of BEYOND will certainly be the symposium: More than 20 speakers working in many different fields will discuss the numerous and promising opportunities that 3D technology offers – providing opportunities for industry, research and the arts. I am in little doubt that this symposium will create a tremendous amount of new and surprising insights, and will consequently release enormous synergies. My thanks go to both the ZKM | Center for Art and Media and the University of Arts and Design Karlsruhe for hosting a great, forward-looking festival. A festival that goes BEYOND all expectations!



## Jürgen Walter MdL

State Secretary – Ministry of Science, Research and the Arts Baden-Württemberg

Farb|Raum I (2010) © Willi Bucher

## WEDNESDAY October 2, 2013

## THURSDAY October 3, 2013

7.30 p.m. ZKM Foyer Welcome Speech Ludger Pfanz and Christiane Riedel

S. 14 8.15 p.m. ZKM Medientheater

The Origin of Noise -The Noise of the Origin Peter Weibel

9 p.m. ZKM\_Foyer Opening-party DJ Deepthought

- S. 22 9 a.m. ZKM Medientheater Neurogenetic Media: artistic and scientific issues Pavel Smetana
- S. 22 9.30 a.m. ZKM Medientheater M2F Créations France – Parallax Quentin Destieu
- 10.15 a.m. ZKM Medientheater S. 23 3D Video Processing, Perception, and Quality – A Content Creator's Perspective Dr. Aljoša Smolić
- S. 23 10.50 a.m. ZKM Medientheater Mirror-less and glasses-free – the future of 3D Dr. Ralf Schäfer

- S. 24 11.25 a.m. ZKM Medientheater The Business' Hot Topics -4K. UHD. HFR and Atmos Stefan Albertz
- 12 p.m. ZKM Medientheater S. 24 Panel discussion: Future of 3D Moderated by Ludger Pfanz

12.30 p.m. Lunch Break

S. 25 2 p.m. ZKM Medientheater

Beyond 3D – multidimensional insights into cells and the body Prof. Dr. Roland Brock, Prof. Dr. Peter Friedl, Bettina Weigelin

- S. 26 3.25 p.m. ZKM Medientheater EVEIL 3D Prof. Gérald Schlemminger
- S. 27 3.55 p.m. ZKM Medientheater NaWik Axel Wagner
  - 4.05 p.m. ZKM Medientheater Science Vision Jill Enders and Chris Spatschek
- S. 27 4.15 p.m. ZKM Medientheater Panel discussion: Science and Vision: BEYOND the Visible Moderation: Axel Wagner

5 p.m. Break

S. 27 5.30 p.m. ZKM Medientheater 3D in the Era of Supercomputers Prof. Dr. Vincent Heuveline

S. 28 6 p.m. ZKM Medientheater 3D Exploration Dr. Sebastian Ritterbusch

S. 28 6.30 p.m. ZKM\_Medientheater Documentary competition Begegnung im All 3D (55 min) / discussion Matthias Bolliger

S. 16 8.30 p.m. ZKM Kubus 3D-ambient-sound-concerts Bernd Lintermann "in vain" Bruno Friedmann "Seguenza III" Ludger Brümmer "Repetition"

FRIDAY October 4, 2013

S. 29 9 a.m. ZKM Medientheater 3D and fluid aesthetics Prof. Dr. Lisa Gotto

S. 29 9.50 a.m. ZKM Medientheater Over-the-top 3D Movie Streaming Using Yabazam Ariela Stern

S. 30 10.45 a.m. ZKM Medientheater 3D Innovation-Center Kathleen Schröter

## S. 30 11.00 a.m. ZKM Medientheater

Panel discussion: Stereo Sisters -The Jury of the BEYOND film festival Moderated by Kathleen Schröter

S. 46 11 a.m. ZKM Vortragssaal MFG Medien- u. Filmgesellschaft Baden-Württemberg GmbH Oliver Zeller

S. 46 11.30 a.m. ZKM\_Vortragssaal Förderung Europa, Mediadesk

#### 12 p.m. Lunch Break

1.15 p.m. ZKM Medientheater

Short film competition block I S. 49 1.45 p.m. ZKM Vortragssaal

> Virtual Dimension Center Dr. Christoph Runde and Guests

S. 48 2.30 p.m. ZKM Vortragssaal S3D

Lutz Möhr

2.55 p.m. ZKM Medientheater Short film competition block II

- S. 47 3 p.m. ZKM\_Vortragssaal Prozesspiraten Sebastian Grimm
- S. 41 3.30 p.m. ZKM Vortragssaal ArcTron 3D GmbH

Martin Schaich M.A.

S. 39 4 p.m. ZKM\_Vortragssaal 2EyeTec Thomas Brenneis

S. 48 4.30 p.m. ZKM Vortragssaal Tridelity Michael Russo

> 4.40 p.m. ZKM Medientheater Short film competition block III

## 5 p.m. Filmpalast am ZKM (Saal 4) Documentary competition Die Kathedrale – Baumeister des Straßburger Münsters (90 min)

## 6 p.m. Break

6.40 p.m. ZKM Medientheater Uncollectables Alexander Stublic

## 7 p.m. ZKM Medientheater Film screening Bad Timing (15 Min.) Regie: Gülsel Özkan

8 p.m. ZKM Medientheater Film Screening 3x3D (70 min)

SATURDAY October 5, 2013

S. 30 9 a.m. ZKM Medientheater Expanding Space and Consciousness Prof. Vibeke Sørensen

S. 31 9.35 a.m. ZKM Medientheater

Expanded Spaces of Representation Volker Kuchelmeister

S. 31 10.10 a.m. ZKM Medientheater Aesthetics and Artificial Intelligence Prof. Dennis Del Favero

S. 32 10.45 a.m. ZKM Medientheater International 3D &

Advanced Imaging Society Jim Chabin

## S. 32 11.20 a.m. ZKM\_Medientheater

ALiVE@work Prof. Jeffrey Shaw S. 33 11.55 a.m. ZKM Medientheater Unframed Ina Conradi Chavez

12.45 p.m. Lunch Break

S. 17 2 p.m. HfG Lichthof 4 Das Logbuch der Gisela (art performance) Pia Matthes

## S. 33 2 p.m. ZKM Medientheater When the Digital hits the Wall

Thorsten Bauer (URBANSCREEN)

2.30 p.m. Filmpalast am ZKM (Saal 2) Documentary competition Fire Ants 3D: The Invincible Army (60 Min.)

S. 34 3 p.m. ZKM Medientheater 3D Solar Energy Markus Kayser

3.45 p.m. Filmpalast am ZKM (Saal 2)

Documentary competition Haie 3D - Fürsten der Meere (50 Min.)

S. 17 4 p.m. HfG\_Lichthof 4 Das Logbuch der Gisela

(art performance)

Pia Matthes

S. 34 4.15 p.m. ZKM Medientheater 3D Architecture Prof. Janjaap Ruijssenaars

> 5 p.m. Filmpalast am ZKM (Saal 4) Documentary competition Tanzt! - Zukunft braucht Bewegung

(96 min) 5.30 p.m. ZKM\_Medientheater S. 35 3D Scan

Douglas Pritchard

7 p.m. Break

#### S. 20 8.30 p.m. ZKM Foyer

3D-Visual Party

and Frex

S. 20

BEYOND evening event Disposition of the BEYOND-awards for best short film and best documentary

## 10.30 p.m. ZKM Foyer

3D-visuals by Lieven van Velthoven, Nikolaus Völzow, Oliver Wrobel and Piero Glina, DJs Guido Huijser

## SUNDAY October 6, 2013

#### S. 35 11 a.m. ZKM\_Medientheater

Panel discussion: Premises for the Digital Promises -From Reel to Cloud Moderated by Peter Weibel and Freddy Paul Grunert

## 1 p.m. Lunch Break

#### S. 36 2 p.m. ZKM\_Medientheater

Work in progress Filmmakers presenting unfinished 3D Projects

**5 p.m. Filmpalast am ZKM (Saal 4)** Film Screening Measuring the world (124 min)



# **3D**ART

The 3D-art exhibition at the BEYOND festival, in the atria and in the big studio of the University of Arts and Design Karlsruhe is opened from October 3 – 6, 2013, from 10 a.m. until 6 p.m. Visitors may expect several interactive installations, screenings and 3D-stereoscopic projects, optical illusions, perspective paintings, performances, and art objects – some of them made with 3D-printers. In the Sound Dome, which is located in the ZKM\_Kubus, multi-channel ambient-sound productions with stereoscopic projections will be presented. More 3D-art will be shown in the Panorama-Lab of the ZKM.

Admission is free and there are guided tours offered through the exhibition.

Vinylaktit I (2013) © Jens Standke



3D Noise Concert by Peter Weibel Wednesday October 2, 2013, 8.15 p.m. ZKM\_Medientheater

## The Origin of Noise – The Noise of the Origin

We have recently discovered that the noise emitted by the TV screen, in part, originates from cosmic background radiation. It is not Kepler's harmony of the spheres, not atmospheric sounds that make the music of the universe – it is noise. Before the definition of music following ancient mathematics there was noise. If light provides us with information from its journey of billions of years starting from the Big Bang, from the origins of the cosmos – our only real source of information – then noise is not the end of the sound spectrum, but its beginning. The primary musical material is noise. However, noise is not only an acoustic phenomenon, but also a visual one, as can be seen in the example of the noise issuing from the TV screen. Noise emerges from objects, but it also originates in the human being, the observer. Noise is an interactive phenomenon between material and the human being, between the world and humans. This is also why the observer, the visitor to the concert who wears 3D-glasses, is able to see how noise becomes shape in space. Virtual noise patterns move rhythmically through space. A storm of data, numbers, and characters generate acoustic noise which, in turn, produces visual patterns of noise. Immersed in a hardcore universe of noise, a climax of techno music, the listener learns a new lesson in mind expansion. Stimulation instead of simulation.

In the digital age we are nothing but particles in the ocean of data, data carriers, hunters of data. We ourselves are data of the data noise.

In the analog age, the piano creates piano sounds, while the drum set drum sounds, and so on. In the digital age any object, and any musical instrument can produce sound. Newly designed instruments as well as everyday objects form a new source of sound production, or the production of new sounds. But these new sounds are also generated by the audience through digital technologies. The audiences' participation remixes the sound data. Heavy metal

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rock, industrial noise, and techno music were only the commercial, tamed impulse for the entry into a new era of "organized sound" (Varèse).

Noise is the real sledgehammer of God.

#### Participants:

Peter Weibel and Ludger Brümmer, Götz Dipper, Manfred Hauffen, Bernd Lintermann, Nikolaus Völzow, Manuel Weber, Akemi Takeya

A coproduction of donaufestival and  $\mathsf{ZKM}\mid\mathsf{Center}$  for  $\mathsf{Art}$  and  $\mathsf{Media}$  Karlsruhe.



## in vain

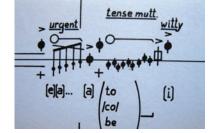
"in vain" was produced by the SWR Stuttgart Radio Symphony Orchestra for 24 instruments with stereoscopic 3D-visualization. It is a musical piece by the composer Georg Friedrich Haas, which will be accompanied by visuals by Bernd Lintermann. The objects projected in stereoscopic 3D, form aesthetic developments, follow instructions and in each new staging perform in new and surprising ways.

Bernd Lintermann

ZKM\_Kubus

Thursday October 3, 2013, 8.30 p.m.

This concert was also performed at the Schwetzingen SWR Festival.



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Bruno Friedmann Thursday October 3, 2013, 9.40 p.m. ZKM Kubus Ludger Brümmer Thursday October 3, 2013, 9.50 p.m. ZKM\_Kubus



Sequenza III, spatialized

Music by Luciano Berio Electronic spatialization by Bruno Friedmann

Music, a time and place variant development of sound is connected auditorially and interactively with the lecture hall and depends on these features and dimensions. In this edition, Luciano Berio's composition, Sequenza III, a complex solo piece for female voice, actively adopts the room by determining the location of sound of the complex audio-modulation, spectra, colors and bizarre changes of the voice. The aim of the edition is to visualize this immediacy as three-dimensional. Sequenza III contains a maximum of diversity and expressiveness that can unfold itself spatially.

## Repetition

Repetition consists of samples from Igor Stravinsky's Sacre du Printemps. The sounds assume a completely new form through extensive algorithmic operations performed on the sonic material. The modifications are so extreme that most of the time the original work is indiscernible. It is thus not an interpretation of Sacre, but a new work containing a few references.

The spatialization is based on the use swarm algorithms with continuously changing parameters. The idea is to perform a rather complex spatial setting. The applied intelligence of the swarm algorithms is necessary to control the flow of data.

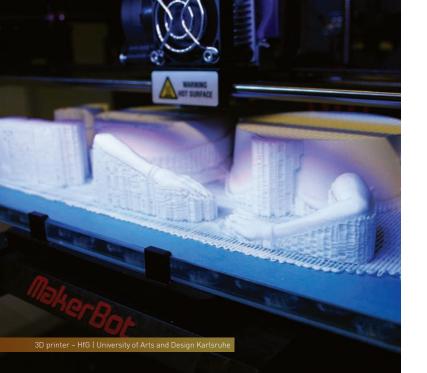


Pia Matthes Saturday October 5, 2013 2 p.m. – 2.30 p.m. 4 p.m. – 4.30 p.m. HfG\_Lichthof 4

## Das Logbuch der Gisela

In this surrealistic play, the terrible pirate grandmother, Hortensia Emilia, enters the expedition ship "Gisela". However, the pirates do not know that located in the belly of the ship are much meaner. The artist and student of the University of Arts and Design in Karlsruhe built a three-dimensional storybook for children and adults in the field of product design.

Assistants: Zoe Grumm, Andreas Goralczyk, Manuel Kolip, David Loscher, Frank Bierlein, Damian Domes, Steffen Wolf, Alena Pfanz & Maike Sauer



Lars Großmann, Jonas Kraft, Juan Francisco Pedraza Kranz, Christian Lölkes, Malte Paetsch Thursday October 3 – Sunday October 6, 2013 10 a.m. – 6 p.m. HfG\_Lichthof 4

## **3D Print**

3D-printers are revolutionizing the world: not only industry but every person should be able to produce his own products – self-made cups, as well as broken parts of kitchen utensils. But 3D-printers are not only used in areas like medicine, they also have a use in branches such as car manufacturing or aerospace. Printers for domestic use work with the Fused Deposition Modeling (FDM) process. A synthetic thread of about 2 mm is fed through a nozzle, melts and then applied with a thickness of 0.1 mm. Here at the festival the visitors can explore and closely observe this amazing process.

# **3D**FILMFESTIVAL

The best movies in the categories 3D documentary and 3D short film will be presented with the BEYOND-Award this year. The expert jury will select the winners from over 50 international entries. The contributions in the field of 3D short film will be shown on Friday October 4, 2013, at ZKM\_Medientheater. The submissions for the 3D documentary competition will be shown on different days in the cinema multiplex "Filmpalast am ZKM." The range of contributions is huge, from technically unique and stunning 3D documentary through stereoscopic feature films, dramatic narratives and artistic 3D productions to 3D animation and cartoons.

Innovative, documentary and fictional space-time-narrations supplying adequate content for the new technological possibilities for stereoscopy are the focus of the festival.

film screening BEYOND 2011 | ZKM\_Medientheater



Saturday October 5, 2013 8.30 p.m. – Champagne reception 9 p.m. – Welcome speeches and BEYOND-Awards From 10.30 p.m. – Electro-Party with 3D-Visuals ZKM\_Foyer

# BEYOND Evening event

In the evening we will welcome you with a champagne reception, and following an opening address, the first prizes in the genres "short film" and "documentary film" will be awarded. Later, it will be time to celebrate: 3D visuals by Lieven van Velthoven, Nikolaus Völzow, Oliver Wrobel and Piero Glina and the DJs Guido Huijser and Frex are waiting for you.

# **PARALLAX** SYMPOSIUM

The Parallax Symposium discusses the future of 3D and synergy with other new technologies such as supercomputers, 3D printing and 3D scanning in the realm of science, technology and art. These cross-border talks enable us to anticipate future developments for scientific, educational and artistic purposes, and to position ourselves in the realm of the third industrial revolution. Parallax is based on the ancient idea of a symposium, translated at BEYOND as "discussing with colleagues and meeting friends."

# WWW.BEYOND-SYMPOSIUM CO





Pavel Smetana Director of CIANT National coordinator of the international mobility programs Expert in art/science program in EU

Thursday October 3, 2013, 9 a.m. ZKM\_Medientheater

## **Pavel Smetana**

#### Neurogenetic Media: Artistic and Scientific Issues

In contrast to the standard conceptualization of the human computer interaction, the neurogenetic enactive relationship features the underlying technology as continuous, ubiquitous and 'intelligent' accompaniment, or a direct extension of the perceptual and cognitive apparatus involved in participation in the system. We will take the concept of enactive media such that the physical engagement with medium allows one to challenge the conventional notion of an interface thereby supporting deepened personal and systemic, involvement with Stereoscopic 3D Media.



## **Quentin Destieu**

#### M2F Créations France

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Quentin Destieu, will give a presentation of the projects developed by the association and the Dardex art group. The Dardex Collective was founded in 2003 by Quentin Destieu and Sylvain Huguet. Exploring the uses of contemporary media, they collaborate with various artists and researchers on multimedia performances and installations using interactivity and games. Their work sarcastically questions a media and technology-saturated world, exploring the borders and relations between technology and pop culture. Dardex's work is regularly exhibited in France and abroad. Dr. Aljoša Smolić Senior Research Scientist at Disney Research Zürich Head of the "Advanced Video Technology" group

Thursday October 3, 2013, 10.15 a.m. ZKM Medientheater



## Dr. Aljoša Smolić

## 3D Video Processing, Perception and Quality – A Content Creator's Perspective

Content creation for stereo 3D is a difficult art that requires mastering the complex interplay of human perception, 3D display technology and artistic intention. This talk will start with a summary of relevant basics in human 3D perception. It will discuss these to principles and limitations of today's 3D display systems. From here it will initiate rules of stereo 3D film making and other aspects of 3D content creation, highlighting technical limitations and challenges. Finally, an overview of related research and results by Disney Research Zurich will be presented.



#### Dr. Ralf Schäfer

Head of ITG expert committee "digital image coding" Member of the judge committee of FKTG

Thursday October 3, 2013, 10.50 a.m. ZKM\_Medientheater

## Dr. Ralf Schäfer

## Mirror less and Glasses-free – the Future of 3D

3DTV faces five major problems: 1. there is not enough 3D content available; 2. the quality of 3D content is not always sufficient; 3. the production of 3DTV is far too expensive; 4. users need glasses to watch 3D; 5. there are no transmission standards for autostereoscopic 3D yet. Therefore Fraunhofer HHI and its partners are working on such technologies to solve these problems. Examples are a trifocal 3D camera system, a very small and lightweight stereo rig, methods for automatically converting stereo to multiview and new coding schemes, which enable the trans-

mission of 3DTV at data rates which today are used for HDTV.



**Stefan Albertz** Product Manager DVS Digital Video Systems

Thursday October 3, 2013, 11.25 a.m. ZKM\_Medientheater

## **Stefan Albertz**

## The Business' Hot Topics – 4K, UHD, HFR and Atmos

Just a few years ago, TV changed to high definition. 3D was added and enabled the audience to watch 3D programs at home. The screen size grows rapidly and with Ultra High Definition: the next leap forward is close at hand. Home entertainment catches up with the movie theaters and as history repeats itself again, it is time for the cinemas to flex their muscles: The Hobbit in high frame rate, 4K projection systems and a literally brand-new audio dimension will catapult the audience into a new experience – or maybe not? Stefan Albertz gives you an insight into the new technologies and their abilities to enrich the audio-visual sensation.



Thursday October 3, 2013, 12 p.m. ZKM\_Medientheater

## Panel discussion

#### Future of 3D

The EU-Program Parallax and the Future of 3D.4K, Higher Frame Rates, Autosteroscopy.You get a new outlook on fiction and a new insight on reality.

24 Moderated by Prof. Ludger Pfanz

Prof. Dr. Roland Brock

Head of Dept. of Biochemistry and Director Master Program Molecular Mechanisms of Disease Radboud University Nijmegen Medical Centre

Thursday October 3, 2013, 2 p.m. ZKM\_Medientheater



## **Prof. Dr. Roland Brock**

#### 3D Visualization in Biomedicine – from Eye Candy to Insight

From molecules to cells and to organs – the research objects in biomedicine are three dimensional. However, most imaging methods produce only two-dimensional representations. Classical light microscopy may serve as a paradigmatic example. As a consequence, imaging entails a reduction in dimensionality. The third dimension can only be recovered by reconstruction. In the development of three dimensional imaging techniques, the development of new instruments goes hand-in-hand with the increase in computing power and imaging processing capacities.



#### Prof. Dr. Peter Friedl

Head of the center of microscopical imaging at Radboud University Nijmegen, Netherlands Head of a laboratory for tumor-imaging at MD Anderson Cancer Center, Houston, USA

> Thursday October 3, 2013, 2 p.m. ZKM\_Medientheater

Science\_BEYOND the visible

## Prof. Dr. Peter Friedl

#### Multidimensionality in Biomedical Research: from Cells to Tissue to Function – and Back

For the process of tumor invasion and formation of metastases in cancer, he will illustrate the generation of structure in 3D and 4D. He will also demonstrate the kinds of insights into the interplay of healthy and diseased tissue – including pathological changes and destruction – can be obtained by intravital microscopy in the living organism. This will lead to the illustration of how advanced visualization methods can guide the understanding and development of new immunotherapies and molecular therapies in the fight against cancer.



**Bettina Weigelin** Scientific assistant at Nijmegen Center for Molecular Life Sciences

Thursday October 3, 2013, 2 p.m. ZKM\_Medientheater

Science BEYOND the visit

## Bettina Weigelin

## 5D Microscopy: How the Immune Systems Kills Tumor Cells

The killing of tumor cells by the immune system's cells will serve as an example of how, by using structure, time and color a maximum of information can be encoded to visually understand the molecular processes involved in the body's fight against cancer



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Prof. Gérald Schlemminger Professor for French at the Institute of European Studies and Plurilingualism, a part of the University of Education Karlsruhe

Thursday October 3, 2013, 3.25 p.m. ZKM Medientheater

## Prof. Gérald Schlemminger

#### Project EVEIL-3D – Second Language Acquisition in 3D

EVEIL-3D is a Franco-German research project that investigates the possibilities of using virtual-reality technologies for second language learning in school contexts. First, it aims at developing a serious game that can be applied in classrooms, using the thousand-year old architectural history of Strasbourg Cathedral as the framework for a story. Second, we propose a concrete didactic concept for implementing 3D-technologies that starts from immersion, presence, and interaction as crucial elements of 3D-supported second language acquisition processes.



Thursday October 3, 2013, 3,55 p.m. ZKM Medientheater NaWik Axel Wagner

Thursday October 3, 2013, 4:15 p.m. ZKM Medientheater

## Panel discussion

## Science Vision

Science and Visions: BEYOND the visible Data from the Micro- to the Macrocosmos are gathering with accelerating speed. How to make the invisible visible and understandable.

Moderated by Axel Wagner



#### Prof. Dr. Vincent Heuveline

Director of the Computing Centre of the University Heidelberg Head of Engineering Mathematics and Computing Lab (EMCL) University Heidelberg

Thursday October 3, 2013, 5.30 p.m. ZKM Medientheater

## Prof. Dr. Vincent Heuveline

#### 3D in the Era of Supercomputers

In the interdisciplinary context of modern sciences the demands placed on scientific communication are becoming crucial. 3D technology significantly inspires and increases the understanding of highly complex processes computed on supercomputers. The translation from mathematical abstraction to human perception is amplified by 3D technology. On the basis of 3D scenarios from the fields of medicine and environmental science, current challenges associated to 3D-technology are addressed. In particular we consider issues related to remote visualization for mobile devices as well as the impact of uncertainty in data assuming a 3D technology.



#### Dr. Sebastian Ritterbusch Head of Research Lab for Scientific Visualization at Engineering Mathematics and Computing Lab

Head of Research Lab for Scientific Visualization at Engineering Mathematics and Computing Lab (EMCL) at the Karlsruhe Institute of Technology (KIT).

Thursday October 3, 2013, 6 p.m. ZKM\_Medientheater

#### Science\_BEYOND the visible

## **Dr. Sebastian Ritterbusch**

#### **3D Exploration**

The sheer quantity of computed information in simulation sciences is constantly rising. This information flood can be countered by improved methods for analyzing and exploring numerical simulations, and by embracing the latest developments in 3D technology and the ubiquitous mobile devices. In cinematic terms, simulation scientists are storytellers, cameramen, producers and editors at the same time, yet with a slightly different inclination. The exploration of simulations in 3D, as well as the exploration of 3D technology and concepts for numerical simulations, are increasingly important aspects in scientific visualization.



## Matthias Bolliger Cinematographer Cinematography and stereography of "Cosmic Encounters 3D"

Thursday October 3, 2013, 6.30 p.m. ZKM\_Medientheater

## Matthias Bolliger

## **Cosmic encounters 3D**

Experience report about "Cosmic Encounters 3D". Opportunities, chances and limits of a stereo 3D production with S3D compact camcorder.

28 Special guest: Jürgen Hansen, Producer/Director

Prof. Dr. Lisa Gotto Professor of Film History and Film Analysis at the ifs International Film School, Cologne

> Friday October 4, 2013, 9 a.m. ZKM\_Medientheater



## Prof. Dr. Lisa Gotto

#### 3D and fluid aesthetics

Today, 3D cinema reclaims this cultural-historical terrain to expand it through its own specific potential.Assuming that the borders of the filmic frame are not fixed but flexible, cinematic aesthetics can be considered as a floating experience. If cinema aims to provide us with an immersive space, then 3D furnishes the medium with an essential condition underlying its appeal to filmmakers and audiences. To explore this potential, I will examine the concept of fluidity as a specific mode of spatial storytelling. This includes aspects of framing, camera work and shot duration. Content Acquisition Manager DDD USA Inc., Los Angeles

**Ariela Stern** 

Friday October 4, 2013, 9.50 a.m. ZKM\_Medientheater



Stereo Sisters

## Ariela Stern

#### Over-the-top 3D Movie Streaming Using Yabazam

Over-the-top streaming distribution is gaining in popularity and presents new revenue opportunities for 3D producers and content providers. Yabazam brings its 3D VOD app to 3D SmartTVs and mobile platforms around the world. Through Yabazam's online streaming video service, filmmakers can learn what 3D fans are watching, when they're watching and where. Discover how Yabazam is connecting and engaging with viewers on a global scale, and where the 3D market is headed as sales of 3D devices continue to grow and customers download the Yabazam app on a daily basis.



Friday October 4, 2013, 10.45 a.m. ZKM\_Medientheater 3D Innovation-Center Kathleen Schröter

## Panel discussion

## Friday October 4, 2013, 11 a.m. ZKM\_Medientheater

## **Stereo Sisters**

Digital technology does not favor male bodies any more. The word is out: The future is female. Panel discussion with Vibeke Sorensen, Lisa Gotto, Ina Conradi Chavez, Ariela Stern and Gülsel Özkan. Moderated by Kathleen Schröter



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Prof. Vibeke Sørensen Professor and CEO of "School of Art, Design and Media" in Singapore

Saturday October 5, 2013, 9 a.m. ZKM\_Medientheater

Expanded Cinema – Expanded Realities – Expanded Minds

## Prof. Vibeke Sørensen

#### Expanding Space and Consciousness

Making things 3 dimensional connects different concepts of space in ways that expand our capacity for reflection, thinking, and consciousness. Space is multidimensional. It is perceived and conceived through the use of all of the senses, the brain, and the memory. This includes traditional media, objects and structures, the ideas that shaped them, and the cultures from which they originated. This talk will discuss several projects that explore the above-mentioned issues, including Green Space and Illuminations that were created while living in Asia. Volker Kuchelmeister iCinema Centre for Interactive Cinema Research. College of Fine Arts, University of New South Wales, Sydney

> Saturday October 5, 2013, 9.35 a.m. ZKM\_Medientheater

> > Expanded Cinema – Expanded Realities – Expanded Minds

## **Volker Kuchelmeister**

#### Expanded Spaces of Representation

In his lecture Volker Kuchelmeister provides insights into current research projects in the field of immersive visual worlds currently in progress at the Centre for Interactive Cinema Research Sydney. Among other things, there is a new method for detecting and displaying a 360 degree moving image and stereoscopic panoramas, an application for large-scale data visualization and examples of interactive 3D video installations.

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Prof. Dennis Del Favero

ARC Australian Professorial Fellow Director, iCinema Research Centre Deputy Director, National Institute for Experimental Arts

> Saturday October 5, 2013, 10.10 a.m. ZKM\_Medientheater

> > Expanded Cinema – Expanded Realities – Expanded Minds

## **Prof. Dennis Del Favero**

#### Aesthetics and artificial intelligence

Australian Research Council funded Discovery project Scenario. Scenario creates a mixed reality (MR) environment, surrounding the user within a 360-degree stereoscopic space, in which the user can interact with digital characters that have a degree of autonomy. This discussion of the aesthetics and symbolic AI architecture of Scenario enters into an explanation of what is termed 'co-evolutionary' narrative, an interactive relationship formed between a human user and an autonomous digital character.





**Jim Chabin** Board of Directors at the Geffen Playhouse in L.A

Saturday October 5, 2013, 10.45 a.m. ZKM\_Medientheater

Expanded Cinema – Expanded Realities – Expanded Minds

## Jim Chabin

#### International 3D & Advanced Imaging Society

The International 3D Society was founded to advance the art and technologies of stereoscopic 3D content and its professional innovators. The organization will host educational opportunities for showcasing work, recognizing achievement and advancing member growth. The International 3D Society is open to individuals and organizations active in moving 3D media to an exciting new era of creative achievement and consumer support.



#### Prof. Jeffrey Shaw

Chair Professor of Media Art and Dean of the School of Creative Media at City University, Hong Kong Director: Applied Laboratory of Interactive Visualization and Embodiment

Saturday October 5, 2013, 11.20 a.m. ZKM\_Medientheater Expanded Cinema – Expanded Realities – Expanded Minds

## **Prof. Jeffrey Shaw**

#### ALiVE@work

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The City University of Hong Kong School of Creative Media's Applied Laboratory for Interactive Visualization and Embodiment (ALiVE) investigates emergent forms in embodied visualization, interactive narrative, participatory media and autonomous agency. It is a platform for interdisciplinary and trans-disciplinary undertakings that provide research opportunities for visiting artists, faculty and students. Prof. Shaw will present recent works from ALiVE that explore new directions in hemispheric, panoramic, stereoscopic and augmented reality, encompassing virtual heritage, big data and artistic discovery. Ina Conradi Chavez Award-winning digital media artist Saturday October 5, 2013, 11.55 a.m. ZKM\_Medientheater

Expanded Cinema – Expanded Realities – Expanded Minds

## Ina Conradi Chavez

## Unframed

Transcendent quality of 3D stereoscopy, when united with art aesthetics of cinematography, enables artists to engage with a different kind of art-making and a different kind of filmmaking. The talk will focus on making of two mesmerizing stereoscopic films Le Phénomène Atmospherique and Elysian Fields.

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Thorsten Bauer Executive Partner and Creative Director of URBANSCREEN GmbH & Co. KG

> Saturday October 5, 2013, 2 p.m. ZKM\_Medientheater



Future Design\_The third Industrial Revolution

## **Thorsten Bauer**

#### When the Digital hits the Wall

The media façade is the locus of the epochal discourse between "things" and "signs". What essentially separates digital fiction and the space surrounding us? This talk is an attempt to express some of the important issues in this contextfrom the standpoint of artistic subjectivity. The lecture is introduced by a short exhibition of the work URBANSCREEN. The second part of the lecture deals with the transfer of experience acquired from other contexts.



Markus Kayser Research assistantship at the MIT Media Lab in Cambridge, USA Mediated Matter Group

Saturday October 5, 2013, 3 p.m. ZKM\_Medientheater

Future Design\_The third Industrial Revolution

## Markus Kayser

## 3D Solar Energy

Markus Kayser was born near Hannover, Germany in 1983. He studied 3D Furniture and Product Design at London Metropolitan University from 2004 - 2008 and continued 2009 with the study of Product Design at the Royal College of Art and gained his Master in 2011. Markus Kayser Studio was set up in London, UK in 2011. Currently he is undertaking a research assistantship at the MIT Media Lab (Cambridge, USA). He has joined the Mediated Matter Group, which focusses on "how digital and fabrication technologies mediate between matter and environment to radically transform the design and construction of objects, buildings, and systems".



**Prof. Janjaap Ruijssenaars** Professor at the Royal Academy of Dutch Architecture, Netherlands

Saturday October 5, 2013, 4.15 p.m. ZKM\_Medientheater

Future Design\_The third Industrial Revolution

Douglas Pritchard Graduate architect from the University of Manitoba Visualisation Consultant

Saturday October 5, 2013, 5.30 p.m. ZKM\_Medientheater

Future Design\_The third Industrial Revolution

## Prof. Janjaap Ruijssenaars

#### The Landscape House

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The Landscape House came into being by asking a fundamental question: Can building be like Landscape? It can if the building is continuous, without beginning or ending, like planet earth.

The presentation will chronologically show the process that followed in an attempt to find the answer to this. A new, 3D printing construction technique proved the most elegant and appropriate for constructing Landscape House.

## **Douglas Pritchard**

## Precise documentation of the built environment: from urban landscapes to stone sculptures

The presentation focusses on the methodology required in the documentation of the Scottish Ten sites, in particular the advantage of using 3D laser scanning and other high-definition digital technologies in the creation of architectural, heritage and urban city models.

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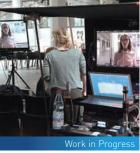
Sunday October 6, 2013, 11 a.m. ZKM\_Medientheater

## Panel discussion

#### Premises for the Digital Promises - From Reel to Cloud

International experts seek to create a bigger narrative from the most recent developments in technology, science and art. They introduce ideas, which not only help to create designs for the future, but also to design the future itself.

Panel discussion with Peter Weibel and Freddy Paul Grunert Coordination: Donald Ranvaud



Filmmakers presenting unfinished 3D Projects Work in Progress

Sunday October 6, 2013, 2 p.m. ZKM Medientheater

## Work in Progress

International filmmakers present clips from their current and projected 3D production so as to discuss them with experts such as Prof. Timo Heinänen, Prof. Axel Brook and Florian Maier, who recently won five 3D CREATIVE ARTS AWARDS from the International 3D Society for outstanding 3D achievements.



3D-Expo Friday October 4 – Saturday October 5, 2013 10 a.m. – 6 p.m.

> **3D-Expo Presentations** Friday October 4, 2013 11 a.m. - 5 p.m. ZKM\_Vortragssaal

# **3D**FXPO

The BEYOND 3D-EXPO is scheduled to place at the ZKM | Center for Art and Media Karlsruhe from October 4 – 5, 2013. Exhibitors present state-of-the-art 3D equipment for professionals and consumers, and showcase innovative solutions from initial conception to finished product. The BEYOND 3D-EXPO presents 3D-related products and innovative technologies, such as VR, Geo-Scanning or 3D Printing. During the 3D-Expo some of the exhibitors will hold a presentation on Friday, October 4 in the ZKM Vortragssaal. The entrance to the 3D-Expo and the presentations are free for visitors.

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#### **3D-Expo Organizer** Karlsruher Messe- und Kongress-GmbH

CONNECTING IDEAS. Karlsruhe – Messen und Kongresse

Festplatz 9 D - 76137 Karlsruhe, Germany phone: +49 (0) 721 3720-0 email: info@kmka.de www.messe-karlsruhe.de

## Karlsruher Messe- und Kongress-GmbH (3D-Expo Organizer)

The "Karlsruher Messe- und Kongress-GmbH" may look back on over 50 years of experience in convention organization. Benefit from this! The "KMK" offers room capacities and services for small meetings, as well as international conventions with accompanying trade fairs. In addition to conventions, the company "KMK" also stands for the perfect realization of trade fairs, culture and sports events. The different locations "Kongresszentrum", "Messe Karlsruhe" and "Europahalle" offer the perfect context for all events.

The "Karlsruher Messe- und Kongress-GmbH": a guarantee for the efficient and seamless performance of your conventions.

## **3D-EXPO** PRESENTATIONS

ZKM\_Vortragssaal

## FRIDAY October 4, 2013

## **11 a.m.** MFG Medien- und Filmförderung Baden-Württemberg "Funding in Baden-Württemberg and Germany" Oliver Zeller

#### 11.30 a.m.

MEDIA Desk Deutschland "Funding in Europe"

#### 1.45 p.m.

Virtual Dimension Center Talk – "3D and VR in Marketing Communication" Dr. Christoph Runde and Guests

#### 2.30 p.m.

"S3D-Discovery-Program: Find out the best fitting system for your application and yourself" Lutz Möhr

#### 3 p.m.

ProzessPiraten GmbH "The long way to successful 3D solutions" Sebastian Grimm

## 3.30 p.m. ArcTron 3D GmbH "Integration of 3D scanning data into multimedia projects for entertaining and educational exhibition contents" Martin Schaich M.A.

4 p.m.

2EyeTec "Minirig – a compact 3D mirror rig" Thomas Brenneis

## 4.30 p.m.

Tridelity "Glasses-Free 3D – Impacts, Use Cases & Outlook" Michael Russo

#### Presentation

Thomas Brenneis "MiniRig – A compact 3D mirror rig" www.2eyetec.com

Friday October 4, 2013, 4 p.m. ZKM\_Vortragssaal



#### 3D-Expo

## 2EyeTec

2EyeTec was founded by Christian Meyer and Thomas Brenneis to design and build the Minirig.

The Minirig is probably the most compact and versatile beam splitter rig presently available. The aim is that it be as easy as possible to maintain flexibility and reduce the limitations of shooting with a mirror rig. Onboard, handheld, documentary, underwater, action, sports are just some of the situations for which the Minirig was designed.

# READY TO TAKE OFF

3D-Expo

## ${\bf AirVisionair} \circledast$

AirVisionair® is one of the leading suppliers of FullHD and UltraHD aerial images and videos taken by Unmanned Aircraft Systems. We use our specially designed GPS-supported AVCopters® to create professional aerial photography and videography from breathtaking perspectives. Our customers come from many different business sectors such as TV, cinema, sports, industry, real estate, tourism and agriculture. With our aerial images we raise the visual presentation of their projects, objects, events and services to a whole new level of quality & fascination. See for yourself the stunning performance capabilities of AirVisionair®!

#### www.alioscopy.com

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#### 3D-Expo

## Alioscopy

Alioscopy is at the forefront of the auto-stereoscopic 3D industry. Whether catching the eye for sales enablement in digital signage or improving the understanding of complex imagery, Alioscopy 3D screens offer glasses-free 3D quality. At 3D-Festival BEYOND 2013, Alioscopy will unveil its latest innovations & partnership with 3D Impact Media: Ultra-HD (4K) screens with incomparable image fineness, showing content by 3D artist Mark Blezinger, interactively powered by Unity and Real-time conversion of live content into Alioscopy format using 3D Impact Media's state-of-the-art live conversion box. Enjoying 3D has never been this easy!

APFELTVKONTOR

CONCEPT CONNECTION

## Apfel Programm Marketing

CONSULTING

Apfel TV Kontor provides consulting services including the negotiation between TV channels and network operators, development of TV channels and apps as well as networking consultancy by making contacts and help to find co-operations. We analyze TV market trends, develop marketing strategies and connect companies of the media industry to exploit synergistic benefits for both sides.

#### www.apfeltv.de

#### Presentation

Martin Schaich M.A. "Integration of 3D scanning data into multimedia projects for entertaining and educational exhibition contents" www.arctron.com

ArcTron <sup>3D</sup> Expertise in Three Dimensions

Friday October 4, 2013, 3.30 p.m. ZKM\_Vortragssaal

#### 3D-Expo

## ArcTron 3D GmbH

As an innovative specialist for three-dimensional cultural heritage documentation ArcTron 3D offers more than just 3D laser scanning services!

Visit our exhibition stand at the BEYOND 3D-Expo and explore the wide range of possibilities of how to integrate digital 3D models into multimedia projects, games or movies.

Our content is displayed in museums, exhibitions and in film and television productions and much more.

3D surveying data can be profitably used and integrated in many areas. Come to our information booth and find out more!

#### www.crs-iimotion.com



3D-Expo

## C.R.S. iiMotion GmbH

C.R.S. iiMotion offers customized vision solutions for the entire video processing chain for industrial customers. The activities cover image and video processing solutions for camera capture, post-processing and rendition on the newest displays. With clients in Europe, USA and Asia, C.R.S. iiMotion has substantial experience in international collaborations with enterprises, ranging from small to large size organizations. We work hand in hand with our customers to provide them everything from one single source, from conception to know-how transfer.

#### www.iwr.uni-heidelberg.de

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# EMCL

#### BD-Expo

## **EMCL** Engineering Mathematics and Computing Lab

The newest methods in scientific calculation are indispensable tools for innovation, whereas energy efficiency becomes important in high performance computing. One of the main objects of the EMCL under the directorship of Prof. Dr. Vincent Heuveline is to make this research available. For the purpose of the Interdisciplinary Center for Scientific Computing (IWR) at the university of Heidelberg, practice-oriented issues in the departments of medicine, meteorology, environmental sciences and energy are covered. The visualization of complex processes with stereoscopic technology is important for the establishment of new methods. www.filmboard-karlsruhe.de

#### www.postdigital.hfg-karlsruhe.de/gamelab www.martinreiche.com



3D-Expo

## Filmboard Karlsruhe e.V.

filmboard karlsruhe e.v.

The Filmboard Karlsruhe is the central network of film creators within the technology region of Karlsruhe. It offers comprehensive advice on production issues and provides film locations. In addition the Filmboard is involved in various film events such as the International Film Festival "Independent Days" which has gained a reputation of its own in Germany.

A central element of the Filmboard's work is the training of media professionals.

## GameLab Karlsruhe with artist Martin Reiche

Martin Reiche is an audiovisual installation artist who lives and works in Berlin, Germany.

He is co-founder and head member of the Laboratory for the Analysis of Social Networks (LASN) at Karlsruhe University of Arts and Design, co-founder of the Subformat Research Group, which conducts research in the theory of space and spatial digitalization phenomena, and regularly holds presentations on professional computer science and digital art and gaming at conferences.

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#### www.hafners-buero.com



MakerBot

Distributor Central & East Europe

BD-Expo



3D-Ex

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#### www.kopfsalat-medien.de



3D-Expo

## HAFNER'S BÜRO MakerBot Distributor Central & East Europe

HAFNER'S BÜRO provides professional 3D desktop printing solutions for global companies as well as for individual designers. It offers sales, training, service and support for the leading Maker-Bot 3D desktop printers, as well as for the corresponding design software. MakerBot 3D printers turn your ideas into objects – from manufacturing hobby models to professional design prototypes. Become inspired and motivated by the wide range of design possibilities with HAFNER'S BÜRO MakerBot Distributor Central & East Europe.

## Karlsruhe Institute of Technology

www.math.kit.edu/ianm4

The workgroup addresses the mathematical aspects of numerical simulation, optimization and high-performance computing. In research and projects, we develop and analyze mathematical models, computational fluid dynamics and simulation of geological phenomena, as well as the scientific visualization.

The interdisciplinary collaboration is an important aspect in the projects, with partners from academia, industry and the public sector.

## **Kopfsalat Medien**

The Film production & Media Agency Kopfsalat Medien produces audio-visual media content-like image videos, television contributions, event-documentations and product-videos. Furthermore, the network of around 10 persons is expert in commercial photography and web developing.

Kopfsalat Medien was founded in 2007 by Daniel Sturm, Media Designer Motion Picture and Audio Teacher for audiovisual communication at UAS Heilbronn. www.lightshape.net



REAL DIGITAL SOLUTIONS

3D-Expo

## Lightshape OHG

Lightshape stands for fascinating high-end visualizations and interactive 3D applications with a true benefit. In close collaboration with customers and partners digital solutions for print, film and interactive applications are developed with a enhanced benefits with respect to efficiency and sustainability. We assist you by emphasizing your product's strength. This will help you creating a solid basis for precise decision-making in your business. Customers in the fields of automotive, architecture, agencies, industry, product design, as well as small and medium-sized businesses rely on our professional support. **Presentation** "Funding in Europe" www.mediadesk-deutschland.eu



#### Friday October 4, 2013, 11.30 a.m. ZKM\_Vortragssaal

MFG Filmförderung Baden-Württemberg

Friday October 4, 2013, 11 a.m. ZKM\_Vortragssaal

www.mfg-filmfoerderung.de

"Funding in Baden-Württemberg and Germany"

Presentation

Oliver Zeller

www.projectiondesign.com www.barco.com



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#### 3D-Expo

## **Projectiondesign / Barco GmbH**

projectiondesign is a Norwegian company that designs, manufactures and markets high-performance projectors for professional, business and consumer applications.

Among its core markets are high-resolution scientific visualization, visual training & simulation, medical imaging, broadcast & post production, public media and entertainment etc. Since 2013, projectiondesign is part of Barco, a global technology company that designs and develops visualization products for a variety of selected professional markets. Barco is active in over 90 countries with about 3,900 employees worldwide. Barco posted sales of 1.156 billion euro in 2012.

#### 3D-Expo

## MEDIA Antenne München (MEDIA Desk)

The European Union has supported Europe's film industry over the years 2007-2013 with a total of 755 million euros. The clear priority lies in the sales, rental and promotion of European films outside their home country, in other European countries as well as globally (65% of the total budget). With MEDIA Plus and MEDIA Training (2001-2006), the EU has invested more than half a billion € in 8000 projects from over 30 countries.

Consulting Lounge with MFG and MEDIA Desk Friday October 4, 2013 10 a.m. – 6 p.m.

## MFG Medien- und Filmgesellschaft Baden-Württemberg GmbH

Since October 1995 the Medien- und Filmgesellschaft Baden-Württemberg (MFG) has been working in an effort to advance the region's film industry. The annual budget of approx. 15 million € subsidizes cinema and TV productions, script development, and distribution of games, documentaries, and animated films. Numerous measures to support the film industry's infrastructure enhance the region's diverse and spirited cinema scene.

Consulting Lounge with MFG and MEDIA Desk Friday October 4, 2013 10 a.m. – 6 p.m.

#### Presentation

Sebastian Grimm "The long way to successful 3D solutions" www.prozesspiraten.de

Friday October 4, 2013, 3 p.m. ZKM\_Vortragssaal



3D-Expo

## **ProzessPiraten GmbH**

Prozesspiraten is a marketing consultancy company based in Ulm and operating throughout Germany. The company's field of specialization lies in firms from high-technology industries, such as software, hardware, pharmacy and logistics.

Customers range from start-up companies, medium-sized family businesses and international companies. We support customers such as Lumo Graphics, Deutsche Messe AG or Notterkran with a wide range of marketing services. Our expertise is in the 3D market.

BBD-CCC BD-Competence-Center Laward DNS Consult	<b>Presentation</b> Lutz Möhr "S3D-Discovery-Program: Find out the best fitting system for your application and yourself" www.3dcc.eu	Presentation Michael Russo "Glasses-Free 3D - Impacts, Use Cases & Outlook" www.tridelity.com Friday October 4, 2013, 4.30 p.m.	www.tv-komm.de
3D-Expo	Friday October 4, 2013, 2.30 p.m. ZKM_Vortragssaal	3D-Expo	3D-Expo

## S3D

DNS Consult (owner Lutz Möhr) is an independent consulting company that has been dedicating its work in the field of artificial perception of three-dimensional content since 2001.

With the aim of assisting companies in marketing their 3D-related products and services, various marketing activities and event series have been launched.

## TRIDELITY AG

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TRIDELITY AG is a provider of glasses-free auto-stereoscopic 3-D screens; the company has been pioneering the development of this cutting-edge technology for years, offering the highest quality 3D solutions. In addition to related technologies and services, TRIDELITY also provides an extensive hardware range of solutions for single-viewer and multi-viewer purposes, with unprecedented viewing comfort, exceptional 3-D depth and the highest resolution in the industry.

## TV Komm. Congress for Digital TV Communication

TV Komm. is the No. 1 event for moving images. The success of the congress is based on best practice workshops with top speakers and the latest technology.

Get in touch with high-level visitors to exchange knowledge and ideas – this is what TV Komm. stands for.

Be a part of the next TV Komm. | February 26, 2014 Trade Fair Center Karlsruhe

#### Panel discussion

Dr. Christoph Runde and Guests "3D und VR in Marketing Communication" www.vdc-fellbach.de

## VIRTUAL DIMENSION CENTER



3D-Expo

## **VDC** The Virtual Dimension Center

The VDC is Germany's leading network for virtual engineering, virtual reality, 3D simulation and 3D visualization. The VDC's main areas of expertise are simulation, visualization, product lifecycle management, computer-aided engineering and virtual reality along the whole value chain of virtual engineering. The VDC's services range from information search and processing connected to the dynamic fields of virtual engineering, marketing and dissemination, establishing contacts on national and international levels, technology transfer and the management of funds.



www.vrlogic.com

## VRLDGIC The professionals in 3-D technology

## 3D-Expo

## VRLOGIC GmbH

VRLOGIC is your professional partner and supplier of stereo 3D technology and solutions. We offer innovative and sophisticated products. Visit the BEYOND 3D-EXPO & receive hands-on demonstrations from experts through an extensive set of applications for virtual Engineering, PLM/Digital Mockup, technical Documentation, Simulation, Bio- & Medical technology, Training/Education and Presentation.

Take advantage from our experience in application-oriented 3D solutions to accelerate research & development, increase productivity, visualize and analyze complex processes and finally raise the value-added chain in your organization.



# FOR LUNCH & BREAK

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Georg Fricker Stiftung

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## IMPRINT

BEYOND 3D-Festival ZKM | Center for Art and Media Karlsruhe Lorenzstraße 19 / D-76135 Karlsruhe, Germany phone: +49 (0)721 / 8100 6001 email: info@beyond-festival.com www.beyond-festival.com

Ludger Pfanz (Head of BEYOND 3D-Festival) Dominique Allard (Project Manager)

## BEYOND is hosted by:

ZKM | Center for Art and Media Karlsruhe HfG | University of Arts and Design Karlsruhe and the Bureau of Culture Karlsruhe In cooperation with:

Karlsruher Messe- und Kongress-GmbH (KMK) Filmpalast Karlsruhe Karlshochschule International University

Design: Nelly Gian G Key visual / 3D-Rendei Andreas Bordeni







Staatliche Hochschule