



IMERSA SUMMIT 2017

We Are The Immersive Experience



February 22-26, 2017

VR Lounge



VR is Happening at IMERSA!

Take in the sights and sounds of Virtual Reality and immersive cinema in the VR Lounge. It's an informal gathering space where you can join colleagues who are producing and demonstrating their content for VR rigs and headsets.

Wednesday: 6:00–10:00 p.m.

Thursday: 9:00 a.m.–8:00 p.m.

Friday: 9:00 a.m.–2:00 p.m. & 5:00–10:00 p.m.

Saturday: 7:00–10:00 p.m.

Come Get Virtual in the Gates Planetarium Lobby!

WELCOME TO SUMMIT 2017

On behalf of the IMERSA Summit 2017 team, we want to extend a western welcome to you all! It's exciting to bring so many friends together from around the world here in Denver. We have organized this annual summit to explore provocative topics with veteran experts and foster dialog with visionary thinkers from many disciplines. Together, we search for common ground as we all navigate a landscape of fast-paced technological and social change.



Over the years, members of our fulldome community have demonstrated the remarkable gift of working together for the common good. The rewards of doing so are great. As IMERSA enters its ninth year, we have strengthened our diverse community by bridging the worlds of giant screen cinema, themed entertainment, gaming, virtual reality, planetariums, computer graphics, science visualization, and informal learning. Through cooperative dialog with our affiliates, we find new ways to leverage our resources and work together to create memorable and transformational experiences that resonate with audiences.

We want to extend a special greeting to newcomers. You'll learn much from our formal presentations, and be spellbound by our community-selected group of fulldome films. These range from experimental works to international festival winners. They combine pioneering work with some of the highest standards of the fulldome medium. Over the next few days, you will meet and hear from many of the creators of these outstanding films.

We are very pleased to recognize Dr. Donna Cox with this year's lifetime achievement award which honors those who have made a lasting and positive impact on our world of dome screens. Congratulations to Donna and her colleagues!

Realizing that we're all vendors and participants in this diverse marketplace, we are pleased to again present our Pro.Show. Thanks to the efforts of coordinator Mark C. Petersen, this special event—held in the beautiful Museum atrium—allows us a rare opportunity to meet face-to-face with fellow providers.

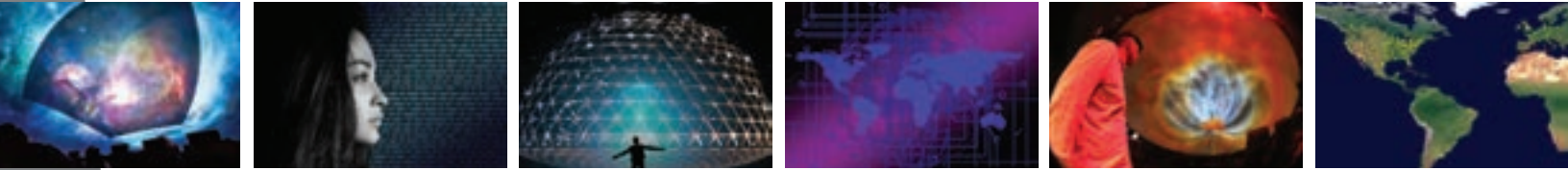
Our heartfelt appreciation goes to the entire IMERSA team for elevating this year's Summit to a new level. Our event professional development chair and IMERSA Director Michael Daut has worked tirelessly with his team to organize this year's world-class presentations. Supported by our Communications Coordinator and event wrangler Carolyn Collins Petersen, Membership Manager Lori Furstenburg, Treasurer Karen Roney, and Webmaster Daniel Baron, we have all worked hard for many months to make your visit enjoyable.

A BIG THANKS to all of our sponsors, media partners, affiliates, presenters, and volunteers for being part of our movement called IMERSA. Your generous contributions help make this Summit possible and provide the resources for our important work year-round. By the close of this event, you will have found new friends, methods and energy to pursue our common goal of expanding the possibilities of immersive experiences. We are looking forward to your active participation in what promises to be a most stimulating and enjoyable week and a great year for fulldome!

Thanks to you all for supporting IMERSA!

THE IMMERSIVE EXPERIENCE

IMERSA fosters the growing interest in digital fulldome cinema, immersive entertainment, performance art and virtual experiences through its Summits and activities.



IMERSA Inc. is a non-profit business league whose roots are deeply embedded in the rise of the digital planetarium (fulldome). Incorporated in 2008, our founding sponsors initiated ongoing research and development programs in search of standards and guidelines for Fulldome production and technologies.

To build our community and inspire meaningful conversation among fulldome and immersive professionals IMERSA host's an annual international Summit for leaders interested in all facets of immersive experience including: digital fulldome cinema, immersive entertainment, interactive performance arts, and other innovative experiential content.

IMERSA embraces many forms of digital immersion, including Planetariums, Giant Screen Cinema, VR headsets, and spherical environments. We encourage our members to develop experiential programming from many fields of scientific research, from nanotechnology to neuroscience and astrophysics.

IMERSA raises the profile of group immersive experiences and represents its members at a number of international events. In addition to facilitating the development of fulldome standards, our leadership team fosters professional development, aggregation of business metrics, and the dissemination of "white paper" reports on best practices and techniques.

OUR MISSION is to advance the art and technology of immersive digital experiences.

OUR VISION is to support an international community of professionals who create large-scale immersive digital experiences in achieving the full potential of their chosen medium.

OUR WORLD is a network of professionals that create group immersive experiences. Our organization builds bridges between many disciplines including academic, VR, AR, fulldome, and arts communities.

OUR STRATEGY As the immersive community grows and changes, IMERSA recognizes the need to evaluate its goals and mission. To that end, the board directed a strategic planning exercise that began with an analysis of where the organization has been and what it has accomplished.

OUR WORK AND PROJECTS include Host our annual IMERSA Summit • Recognize outstanding life-time achievement • Outreach to fulldome festivals and conferences • Develop standards and guidelines • Build a video and resource library

OUR GOALS IMERSA is a driver and nexus for communication, collaboration, experimentation, education and promotion of digital immersive media in a variety of venues, formats and functions.

REACHING FOR NEW FRONTIERS



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THX

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www.LochNessProductions.com

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www.FulldomeOnDemand.com



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VR Dome Theater



www.VRDomeTheater.com

GENERAL SPONSORS



SUPERSPHERE SPONSORS



HEMISPHERE SPONSOR



- IMERSA staff and volunteers will be identified throughout the Summit by yellow ID badges. We will be happy to answer any questions you may have, or help to direct you as necessary.
- Dress is business casual for both days and evenings at the Summit.
- Colorado weather can be extremely variable during the winter months. Snow in the morning, warm sun in the afternoon. Or just the reverse! Be prepared. Bring a warm jacket.
- Denver is called "The Mile High City" for a reason. High and dry at 5,280 feet above sea level, the altitude can make a big impact on your stay. Drink plenty of water, don't rush, and limit your alcohol intake. A little goes a long way if you are not used to the altitude. If you find yourself a little dizzy, have a seat, and take a deep breath!
- Wireless internet will be available at all venues so bring along your laptop/wireless devices.
- The Summit will be held at the following venues:

DoubleTree Hotel by Hilton Denver

3203 Quebec Street, Denver, CO 80207
 Tel: +1-303-321-3333
 Fax: +1-303-329-5233

Denver Museum of Natural Science (DMNS)

2001 Colorado Blvd. Denver, CO 80205
 Tel: 303-370-6000
If you are arriving by taxi or shuttle, drop-off is on the North side, and there will be signage to direct you. Plenty of free parking is also available at the museum.

SIE FilmCenter

www.denverfilm.org/about/sie-filmcenter
 2510 East Colfax Ave., Denver, CO 80206

- Once you have registered and signed in, your Summit badge will allow you access to all registered activities.
- **Meals and Food**
 - > The banquet is included with your registration. All other meals are "on your own."
 - > The T-Rex Cafe will be open 9:00 am to 5:00 pm during the Summit for lunches, coffee, and snacks.
 - > There is a snack bar at the SIE Center and many good restaurants within walking distance.
 - > There are no restaurants within walking distance of the museum, so please make your own arrangements or contact one of the staff if you need help finding a place to eat.
 - > The hotel has a number of restaurants available within walking distance.

Email your questions to info@imersa.org and we will get right back to you with an answer. You can also leave a message and your contact information at +1 303-459-2940

SLACK New User Tutorial

Subject: IMERSA Summit 2017 - Lets Start the Conversations Online

We've been asking ourselves how we can keep you in the loop. How can we better connect people of similar interests? Can we centralize announcements? And how can you share your exciting news with the community? We are hoping that smartphones can be part of the equation.

So we've begin using "Slack" as a tool to continue the amazing conversations that happen at the IMERSA Summit. It's both an icebreaker into the community and way for you to keep your ear to the ground. And also, it's free.

To join the IMERSA Slack group, visit the link below to request an invitation instantly.

<http://tinyurl.com/imersa-slack-invitation>

After you've registered, then be sure to install the Slack app on your smartphone (iPhone & Android). But you can also use Slack on any web browser. Then join some channels relevant to your interested and start by sharing a recent project you've worked on <https://imersa.slack.com>.

Mobile App

IMERSA Summit 2017 Eventbase App

IMERSA is pleased to make our extensive schedule available via the EventBase app. It will guide you through all the events during IMERSA Summit 2017.

- <http://free.eventbase.com/event/eventbase/imersa-2017-summit/>
- Access it from your Smartphone, iPad, tablet, and computer for the latest schedule information, bios of speakers, and much more!
- The Eventbase app is free, just follow the link at the top of IMERSA's Events page to get connected!
- During the Summit, check the app for changes and updates to the schedule.

Contact Information

IMERSA Help Phone: 303-459-2940
Hotel: 303-321-3333, Fax: 303.329.5233
DMNS Security: 303.370.6666

INCOMING!

Asteroids, Comets, and the Hard-Hitting Stories of Our Cosmic Origins



FRAGILE PLANET

Narrated by Sigourney Weaver

WINNER
FullDome Award of Excellence
JENA FULLDOME FESTIVAL

Habitat Earth

LIVING IN A CONNECTED WORLD

Narrated by Frances McDormand

DIRECTOR'S AWARD
CENTRAL EUROPEAN
FULLDOME FESTIVAL

DIRECTOR'S AWARD
JENA FULLDOME FESTIVAL

OFFICIAL SELECTION
FISKE FULLDOME FESTIVAL

LIFE

A COSMIC STORY

Narrated by Jodie Foster

WINNER
Best FullDome Program
JACKSON HOLE
WILDLIFE FILM FESTIVAL

WINNER
Best Integration of Scientific
Data and Best Narration
JENA FULLDOME FESTIVAL

EARTH QUAKE

Evidence of a Restless Planet

Narrated by Benjamin Bratt

NOMINATED
Best FullDome Program
JACKSON HOLE
WILDLIFE FILM FESTIVAL

NOMINATED
Best Visual Effects
in a Special Venue
VISUAL EFFECTS SOCIETY

FINALIST
Best Video
THE INTERNATIONAL
SCIENCE AND ENGINEERING
VISUALIZATION CHALLENGE

Visit businesspartnerships@calacademy.org for more information on the latest productions by the California Academy of Sciences.

Wednesday, 2/22/17

5:00 p.m.–7:00 p.m. (1 van)
5:15 p.m.–7:15 p.m. (1 van)
From: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)
To: Denver Museum of Nature & Science

9:00 p.m.–11:00 p.m. (2 vans)
From: Denver Museum of Nature & Science
To: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)

Thursday, 2/23/17

7:30 a.m.–9:30 a.m. (2 vans)
From: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)
To: Denver Museum of Nature & Science

7:30 p.m.–8:30 p.m. (2 vans)
From: Denver Museum of Nature & Science
To: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)

Friday, 2/24/17

7:30 a.m.–9:30 a.m. (2 vans)
From: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)
To: Denver Museum of Nature & Science

9:00 p.m.–11:00 p.m. (2 vans)
From: Denver Museum of Nature & Science
To: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)

Saturday, 2/25/17

7:30 a.m.–9:30 a.m. (2 vans)
From: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)
To: SIE Center on Colfax

6:30 p.m.–8:30 p.m. – (1 van)
From: SEI Center on Colfax
To: Denver Museum of Nature & Science

9:00 p.m.–11:00 p.m. (1 van)
9:30 p.m.–11:30 p.m. (1 van)
From: Denver Museum of Nature & Science
To: Doubletree by Hilton Hotel (3203 Quebec Street, Denver)

This agenda is subject to change. Updates are available on the Summit App: <http://free.eventbase.com/event/eventbase/imersa-2017-summit/>



Photo by: James Hyder

| TIME | DOUBLETREE HOTEL | |
|-----------------|--|--|
| 2:00–6:00 p.m. | Registration | |
| 4:00–6:00 p.m. | Reception | |
| 5:15–7:15 p.m. | Shuttles from DoubleTree Hotel to DMNS | |
| TIME | GATES PLANETARIUM (DMNS) | |
| 6:30–7:30 p.m. | | SESSION A Camera Matters - Latest digital camera technology - 8K and more! Producer: Michael Daut <i>We will see examples of the latest 8K digital camera capture technology for traditional cinematography, hemispherical/spherical capture, and VR. Including 8K digital camera tests from GSCA dome demo.</i> |
| 7:30–8:00 p.m. | | FULLDOME SHOWS: Aurora: Lights of Wonder (full-length feature) Sinkholes of Yucatan, Doors to Another World (short subject) |
| 8:00–8:30 p.m. | BREAK | |
| 8:30–10:30 p.m. | | FULLDOME SHOWS: Short Subjects <ul style="list-style-type: none"> • La Luz Mas Alla Del Brillo Y el Color • Special Places: Writing-on-Stone • Multiversos • The Critical Time of the World Civilization Full-length features <ul style="list-style-type: none"> • Secret World of Moths • Lichtmond, World Premiere concurrent with Hamburg Planetarium |
| 9:00–11:00 p.m. | Shuttles from DMNS to DoubleTree Hotel | |

| 7:30–9:30 a.m. | Shuttles from DoubleTree Hotel to DMNS |
|-----------------------|---|
| 8:30 a.m. | Coffee and Registration, DMNS West Atrium Lobby |
| TIME | RICKETSON AUDITORIUM |
| 9:00–10:30 a.m. | SESSION B Audience Matters: Cultivating New Audiences Producer: Kim Nickels <i>The dome has been at home in planetarium settings for almost 80 years, but what about other uses of the dome that are designed specifically to reach a variety of audiences. What kinds of content have been effective, and what audiences are they attracting? We will discuss ways to program immersive experiences in the dome that reach far beyond astronomy, into other sciences, research, current events, and entertainment.</i> |
| 10:30 a.m. | BREAK |
| 11:00 a.m.–12:30 p.m. | SESSION C System Matters: Making Decisions Generously sponsored by Christie Digital Producer: Ian McLennan <i>Choosing a digital fulldome system is a challenging process that requires research and a wide knowledge of available technology. This session is designed to help you focus your efforts and create a checklist of things you need to consider when selecting a system based on your needs assessment. We will walk through the creation of both a needs assessment and a checklist for your RFP process.</i> |
| 12:30–2:00 p.m. | LUNCH ON YOUR OWN |
| TIME | GATES PLANETARIUM |
| 2:00 p.m. | The Incredible Sun (short) |
| 2:00–3:30 p.m. | SESSION D Technology Matters: Calibration and Demonstrations Producers: Michael Daut, Dan Neafus <i>There is a lot of technology that has to come together to create a successful immersive dome experience. We will explore key components of the technology including video projectors, audio, video playback, and real time simulation software and demonstrate (integration, engineering and measurement guidelines) the power and capabilities of the state-of-the-art in technology and how it can serve your theater. Also included: an HFR demo, IPS audio standards, DIGSS, and AFDI discussions.</i> |
| 3:30 p.m. | BREAK |
| 4:00 p.m. | SESSION E Science Matters: Accuracy in Immersion Producer: Mark SubbaRao <i>A majority of immersive domes exist in museums and science centers, so accuracy of the information presented in fulldome shows is extremely important to the mission of the institutions who exhibit the shows. The balance between accuracy and portraying scientific concepts that are understandable and accessible to the general public is often a creative challenge. Panelists will explore the challenges and solutions by people who face these issues on a regular basis.</i> |
| 5:30 p.m. | BREAK |
| 6:00–7:00 p.m. | SESSION F Design Matters: The Language of Immersive Cinema (WOW Moments) Producer: KaChun Yu <i>Although fulldome cinema is an offspring of traditional cinema, it has unique attributes that lead to different rules for effective storytelling. We discuss these concepts including defining the "frame" in an otherwise frame-less medium, the camera language unique to immersive cinema, the pacing of editing, and how to draw attention and focus of the audience members to content within the dome when they have the flexibility to look anywhere within the hemispherical display.</i> |
| 7:00–7:45 p.m. | FULLDOME SHOWS: Fireworks – Magic (short show) Cernunnos (short show) Man from 9 Dimensions (full-length show) |
| 7:45 p.m. | INCOMING |
| 8:15 p.m. | DINNER ON YOUR OWN (shuttles to hotel) |

| | |
|-----------------------|---|
| 7:30–9:30 a.m. | Shuttles from DoubleTree Hotel to DMNS |
| 8:30 a.m. | Coffee and Registration in the West Atrium Lobby |
| TIME | RICKETSON AUDITORIUM |
| 9:00–10:30 a.m. | SESSION G Interaction Matters: Live Shows and What it Takes to Succeed Producer: Samantha Richards <i>Real time graphics systems in digital fulldome systems offer theaters the opportunity to take their audiences on virtual and often interactive, presenter-led journeys through the known universe. These “live” experiences are often rated extremely highly and can leave a lifelong impression on the audience. We will discover techniques and best practices to help make your live shows succeed.</i> |
| 10:30 a.m. | BREAK |
| 11:00 a.m.–12:30 p.m. | SESSION H VR/AR Matters: Personalized Immersion Producer: Paul Fraser <i>Virtual reality (VR) and augmented reality (AR) represent the forefront of individualized immersive experiences designed to be personal gateways into virtual worlds or to add a layer of information on top of reality. A panel of experts will guide us through the latest tech and content to give us a clearer view of the present and an enticing glimpse at the future.</i> |
| 12:30–2:00 p.m. | LUNCH ON YOUR OWN |
| 2:00–5:00 p.m. | Pro.Show <i>IMERSA’s annual networking event bringing together professionals in all aspects of immersive production to show off their wares and talk shop in an exhibit setting.</i> |
| TIME | GATES PLANETARIUM |
| 5:00 p.m. | FULLDOME SHOWS: • <i>Planet Nine</i> (full-length show) • <i>Secrets of Gravity</i> (full-length show) |
| TIME | SOUTHEAST ATRIUM |
| 6:00–7:45 p.m. | Cocktails, Awards Banquet generously sponsored by ZEISS |
| TIME | GATES PLANETARIUM |
| 7:45 p.m. | <i>200 Years of Zeiss</i> (short film) Donna Cox Keynote Presentation |
| 8:30–10:00 p.m. | SESSION I Production Matters: Works in Production and Festival Shorts Producer: Monica Bolles <i>A look at the latest fulldome productions in progress with an opportunity to give the producers valuable feedback on their shows and your interest in them.</i> WORKS IN PROGRESS • <i>Faster than Light</i> , Mike Bruno, Thomas Lucas • <i>Earth II</i> • <i>The Pyramids</i> , The Secrets, Amr Ellaithy • <i>Mars 1001</i> , Robin Sip • <i>Curved Space</i> • <i>Kyma</i> , Rene Chenier, Bruno Colprin, Philippe Baylauco SHORT FILMS • <i>Bioinspire</i> • <i>The Shadow</i> • <i>A tale of Scale</i> • <i>Starts of the Stars</i> |
| 10:00 p.m. | FULL-LENGTH LIVE PERFORMANCE • <i>One Day on Mars</i> |
| 9:00–11:00 p.m. | Shuttles from DMNS to DoubleTree Hotel |

| | |
|-----------------------|--|
| 7:30–9:30 a.m. | Shuttles from Doubletree Hotel to SIE Center |
| 8:30 a.m. | Coffee and Registration at the SIE Center |
| TIME | SIE AUDITORIUM |
| 9:00–10:30 a.m. | SESSION J IMERSA Matters: Strategy Session Producer: Ryan Wyatt <i>IMERSA exists to bring together various communities that are approaching immersive media in sometimes similar and often very different ways. How can we be most effective in advancing the art and knowledge of the medium. Join us for this strategic planning session to let your voice be heard and to join the movement. Included will be a short presentation about fulldome in the corporate world, by Toby Friedl.</i> |
| 10:30 a.m. | BREAK |
| 11:00 a.m.–12:30 p.m. | SESSION K Business Matters/Business Models: Barriers and Pathways to Success Producer: Matt Heenan <i>How a theater is positioned and marketed to the community is hyper-critical to its success. There are numerous factors that can either undermine or contribute to the health of a theater and its ultimate financial success. A team of theater operators and marketing experts will engage in a compelling discussion to illuminate the pathways to effectively market a theater, the institution, and the immersive experience.</i> |
| 12:30–2:00 p.m. | LUNCH ON YOUR OWN |
| 2:00–3:30 p.m. | SESSION L Submitted Presentations Producer: Monica Bolles <i>Short presentations from immersive experts:</i> 1) <i>Fulldome Interactive Collaborative Role-play Gaming</i> , Annette Sotheran-Barnett 2) <i>Feeding Fulldome to the Masses: Looking Back and Peering Forward</i> , Mark Petersen 3) <i>Beyond the frame: When your screen is water, a building, or a dome</i> , Yuri Kostenko 4) <i>Virtual Reality for Education: The Destination Pluto VR Experience</i> , Tom Casey 5) <i>The Reality of Virtual Collections: A Museum Application</i> , Rich Busch 6) <i>The Planning and Development of Kyma</i> , René Chénier |
| 3:30 p.m. | BREAK |
| 3:45–5:00 p.m. | SESSION M Submitted Presentations Producer: Monica Bolles <i>Short presentations from immersive experts:</i> 1) <i>We Are Stars - Lesson Learned</i> , Paul Mowbray 2) <i>Behind the Scenes of Spontaneous Fantasia</i> , J Walt 3) <i>Fulldome Time-lapse Photography</i> , Maciej Mucha 4) <i>The Earth Theater</i> , Hans Gubbels 5) <i>Production of The Incredible Sun</i> , Brno Observatory |
| 5:15–7:00 p.m. | DINNER ON YOUR OWN |
| TIME | GATES PLANETARIUM |
| 7:00 p.m. | FULL DOME SHOWS • <i>Selas</i> (short film) • <i>Hello Earth</i> (full-length feature) |
| 7:30 p.m. | <i>Spontaneous Fantasia</i> , a live performance by J-Walt |
| 8:00 p.m. | BREAK |
| 8:30–10:30 p.m. | SESSION N Art Matters: Creativity in the Dome Producer: Ty Owen <i>This session, hosted by Ty Owen spotlights some of the latest cutting-edge art pieces designed for immersive spaces and the technology and techniques used to create them. This session will explore challenges in creating immersive experiences and show why art matters to the gatekeepers of immersive facilities.</i> <i>Attendees will be treated to a visual and sonic feast of what is possible today and in the future of immersion.</i> SHORT FILMS • <i>Keep Searching</i> • <i>Intensional Particle Dome Installation</i> • <i>Topographical by Nature</i> |
| 10:00–10:30 p.m. | <i>Art Universe</i> (full-length feature) |
| 9:00–11:00 p.m. | Shuttles from DMNS to DoubleTree Hotel |

| TIME | DOUBLETREE HOTEL |
|---------------------------|---|
| 9:30–10:30 a.m. | Gravitational Lens Techniques with Blender - Ron Proctor |
| 10:30–11:30 a.m. | 1) Live Presenters for Planetarium Shows - Sebastien Gauthier 2) Microdose VR - Neil Davenport 3) IMERSA team meetings and strategy implementation. |
| 11:30 a.m.– 12:30 p.m. | 1) Timelapse Photography - Maciej Mucha 2) Optimizing After Effects Projects - Jennifer Deafenbaugh 3) Summit 2018 planning forum with COSI |
| 12:30–2:30 p.m. | LUNCH ON YOUR OWN |
| 2:00–3:30 p.m. | IMERSA team meetings, strategy implementation, and wrap-up. |



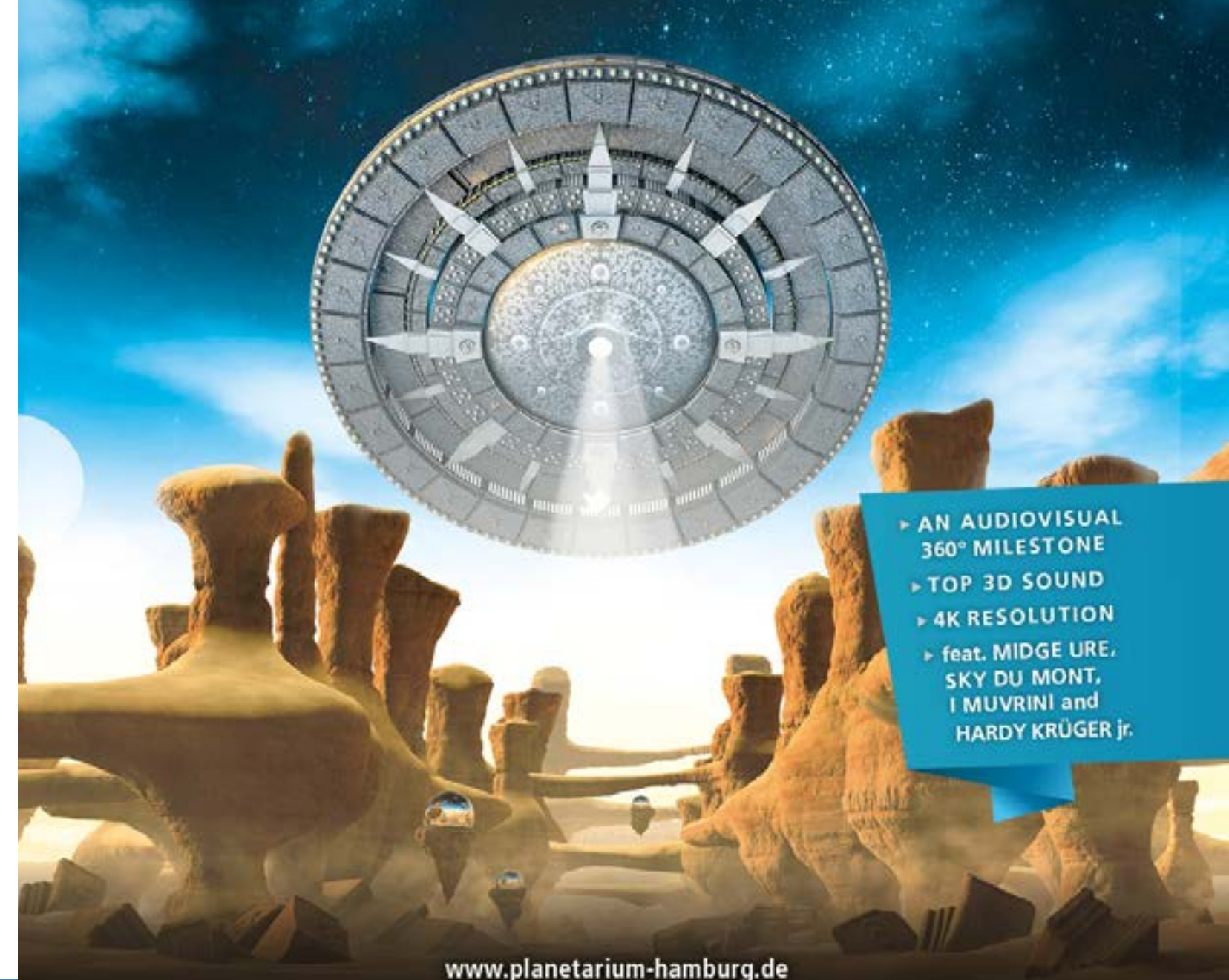
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LICHTMOND

DAYS OF ETERNITY

The new LICHTMOND experience



- ▶ AN AUDIOVISUAL 360° MILESTONE
- ▶ TOP 3D SOUND
- ▶ 4K RESOLUTION
- ▶ feat. MIDGE URE, SKY DU MONT, I MUVRINI and HARDY KRÜGER jr.

FEATURE-LENGTH PRESENTATIONS

Aurora: Lights of Wonder

Metaspace, Republic of Korea

Aurora: Lights of Wonder is a scientific story with beautiful art work about the legends of the aurora. It features sophisticated and dynamic motions of real Aurora storms taken by special ultra-high sensitivity cameras at 30 FPS.

Art Universe

360Art.Pro, Thailand

Originally produced for the Pepsi Art Dome at Voodoo Fest 2015, this piece is a collaboration between artists and animators at Likuid Art and 360ART (formerly FullDomeLab). This immersive installation, featuring original score and sound design, showcases work by artists from Likuid Arts' growing online subscription-based art repository. Conceived of and directed by the Likuid Art creative team of David Gardner and Chris Saunders, it presents a new way to experience art.

Hello Earth

Heavens of Copernicus Planetarium, Poland

How was speech born? Can we find everything we need on the Internet? Will we make ourselves understood by extraterrestrials or other civilizations? Hello Earth is a story about the development of human communication over the centuries and how it has changed not only the world but also our personal lives.

Incoming!

California Academy of Sciences, USA

The 2016 original planetarium show explores the past, present, and future of our solar system and the landmark discoveries scientists have made sending spacecraft to visit tiny worlds. Cutting-edge visualizations bring real-time data from current NASA missions to life while taking audiences on a ride through the dynamic story of our cosmic origins. Along the way, audiences discover what these impacts from above can teach us – and how scientific advances may allow us to find and track cosmic threats before they reach planet Earth.



LICHTMOND 3 - Days Of Eternity

Co-produced by Planetarium Hamburg and Blu Phase Media, Germany

World premieres on February 22 in Hamburg & Denver. Gold and platinum-winning sound architects Giorgio and Martin Koppehele continue their artistic journey by setting another audiovisual milestone. Perfect sound and a fabulous, song-based story merge in a full-dome experience that takes the viewer on a fantastic journey to the pristine world of the planet Chronos - the universal giver of time - where time goes by, time disappears and time is born.

One Day On Mars

Planetarium Rio Tinto Alcan, Canada

Join our expedition to Mars and enjoy a thrilling immersive experience. You'll dive into the depths of seemingly bottomless canyons and brave the violent winds sweeping across the Red Planet's icy dunes. Set to original music by Dumas, *One Day on Mars* takes you to a world that humans may well visit in just a few decades in our ongoing search for life there.

Planet Nine

Adler Planetarium, USA

Follow Mike Brown and his team at CalTech as they uncover dwarf worlds like the remarkably bright Eris; Haumea, an egg-shaped object rotating incredibly fast; and Sedna, whose orbit takes it deep into the far reaches of the solar system. Is there a new planet beyond these distant objects? We'll tag along on Mike Brown's first night searching for the ninth planet at the Subaru Telescope in Hawaii. Join us on the hunt!



The Man from the 9 Dimensions

Miraikan (National Museum of Emerging Science and Innovation), Japan

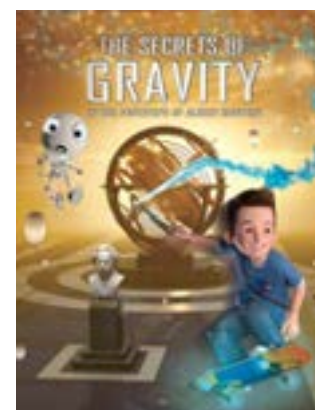
The Man from the 9 Dimensions is a full-dome film on the Theory of Everything -- the ultimate goal of physics to describe all natural phenomena by a single consistent theory. Be ready to be surprised

by the new world of vibrating strings and hidden dimensions predicted by the most promising hypothesis for the "Theory of Everything," the Superstring Theory. Directed by Takashi Shimizu of The Grudge, the movie seamlessly fuses live action scenes, mesmerizing CG, and latest techniques of scientific data visualization and guides you through the esoteric world of theoretical physics in a way never before seen.

The Secrets of Gravity - In the footsteps of Albert Einstein

Softmachine Immersive Productions GmbH, Germany

Why do things fall to the ground without magic? The young magician's apprentice Limbradur is far more interested in the universe and its secrets than boring magic spells. He is fascinated by the stars, the universe and the laws of nature. So, one night he sneaks into the Albert Einstein Museum, where he meets ALBYX3, a small, clever but rather quirky robot who knows all about Albert Einstein and his theories. ALBY takes LIMBRADUR on a magical journey of discovery through time and space, during which they not only uncover the secrets of gravity but also learn much about friendship and imagination. For Limbradur and ALBY both have secrets of their own.



The Secret World of Moths
Nordic Fulldome Production, in co-operation with Heureka The Finnish Science Centre, Finland

The Secret World of Moths is a magical journey to the world of moths. Using 3D X-ray tomography, we shed light to their hidden macrocosm and explore their way of life in an unprecedented way. Geographically the film spans from the Arctic Circle to the Equator. Observing these two extreme environments helps us learn about and understand the diversity and complexity of their macroscopic world and our fragile existence on planet Earth.



SHORT FILMS

200 Years Carl Zeiss

Carl Zeiss AG, Planetarium Division, Germany

200 Years Carl Zeiss is a 7-minute film about Carl Zeiss, the founder of the Carl Zeiss Company in Germany, produced by students of the Bauhaus University in Weimar, Germany.

A Tale of Scale

Aayushi Fulldome Films, India

This short film is a poem version of planet and star size comparisons. *A Tale of Scale* is a unique way of representing the size comparisons of celestial objects. With the help of fun-filled motion graphics, cute fables, rhyming script and melodious music, the show puts a smile on your face. The show is very much adored by young audience and is suitable for all ages.

Bioinspire

VOID, Turkey

BioInspire is an A/V dome performance which has screened in the Institute of American Indian Arts (New Mexico, USA) and Fiske Planetarium - University of Colorado Boulder (Colorado, USA). In this project, getting the inspiration from the structure of an artificial neural network, our aim was to redefine the complexity of a neural network using abstract objects and sound referring to its natural form.

Cernunnos

Society of Arts & Technology / NEST Immersion, Canda

Will man be able to control the technology he has created, or will the technology destroy him, his works, and with it the entire human race? It also pokes fun of the many conspiracy theories linked to the CERN. Winner of Janus first year award, Fulldome Festival, Jena 2016, Best in Show award at FDUK 2016, Best Use of Dome award FDUK 2016

Firework – Magic

SphereMotion.com, Czech Republic

Fireworks – Magic is art for four senses (sight, hearing, smell and touch thanks to a pressure wave). How many other arts, for four senses, do you know? And what happen when you will use only three senses? Well, you will see, please, enjoy your first indoor fireworks.

Intensional Particle Dome Installation

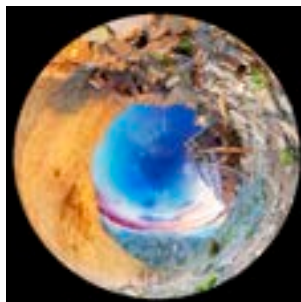
Hiroaki Umeda, Japan

Originally created as a dance work, Intensional Particle has been recreated into a dome installation. When waterfalls and rivers are seen from afar, they seem to maintain static forms; yet, when one zooms into the same objects in a microscopic level, it is noticeable that they are consisted of ceaseless motions such as swells, waves, vortex and crosscurrents.

Keep Searching

Meditative Entertainment and Dreams Lost In Time, USA

Keep Searching is a meditative, fulldome film that strives to symbolically represent and inspire visions of peace and hope through a musical, 360-degree exploration of nature, dreams and the various states of consciousness.



La Luz Más Allá del Brillo y el Color

Planetarios Digitales, Mexico

This is an experimental piece mostly 3D imagery about light and some basic aspects about it. See how the light is used in your daily living through this amazing journey through light.

Multiversos

Juliana and Arias Ruiz Colombia

Multiversos is the union between the abstract imagination and the contemplation of the elements of the universe. Through correlated music and drawing, we refer to spatial geometry, to a moving architecture where circles, squares and triangles are identified as celestial bodies, and to the possibilities of ordering chaos within them. This won 2nd prize in the Professional Category in Latino Dome Fest 2016 in Medellín, Colombia.

Selas

Eugenides Foundation Planetarium, Greece

Selas (Greek for "aurora"), showcases views of the spectacular panorama of the aurora borealis. Images taken from the fulldome films *Experience the Aurora* (produced by Evans & Sutherland, 2011) and *Life Under the Arctic Sky* (produced by Mirage3D and BTS Media, 2015).

Sinkholes in Yucatan: Doors to Another World

Planetarios Digitales, Mexico

Take a trip to Mexico's Yucatan peninsula to explore the amazing cenotes (sinkholes), captured for full-dome for the first time. From their geological creation to their cultural use by the Maya, Cenotes has always been an unique feature of this land.

Special Places: Writing-on-Stone

Full Circle Visuals, Canada

Special Places is a feature-length fulldome film in development for Winter 2017. This eight-minute piece is the first chapter of the film which will take the audience on a journey to several sacred aboriginal locations across Canada.

Stars of the Stars

INCEPTION Studio, Egypt

A large corpus of literature from Islamic astronomy remains today, numbering approximately 10,000 manuscripts scattered throughout the world, many of which have not been read or cataloged. The film covers these facts and information about the astronomical tools developed and mastered by Arabs like astrolabe and sextant.



The Critical Time of the World Civilization

Sarawut, Chutiwongpeti, Thailand

My goal is to investigate the expressive possibilities of conceptual visual language and to develop collaborative new art as part of both contemporary art/contemporary global structure and the technological civilization in which we live today. In the era of confusion and distortion values of aesthetics and common sense have been greatly transformed. At the end of the century we are facing the crisis of world civilization.

The Incredible Sun

Brno Observatory and Planetarium

Every second the Sun emits million times more energy than the world consumes every year. Where does such a huge amount of power come from? Discover our star through the breathtaking timelapses. Thanks to the real images taken by the Solar Dynamics Observatory and processed by advanced mathematical methods, you will experience the true nature of the Sun and find out that it is far from being as calm as it seems at first glance.

The Shadow

Joanna Saleta, Poland

The Shadow is a Science-fiction fulldome short done in Unreal Engine 4. A space station is destroyed by an unknown entity. A lone survivor is trying to reach an asylum on a mysterious planet?

Topographical by Nature

RedLine, USA

Topographical by Nature was created in collaboration between current RedLine Resident Artist Ashley Frazier, and 3d Animator Michael Sperandeo. The concept of this work pays homage to age through a series of metaphorical imagery, with a focus on how accumulation builds up to create something grand.

WORKS IN PROGRESS

Curved Space

Michael Fleming, USA

Curved Space is an colorful exploration of tessellations of positive, zero, and negative curvature planes.

Earth II

SphereMotion.com, Czech Republic

Give your visitors something unique. Let them be a part of the team who need to solve the challenge of all mankind. The aim of the Mission for your visitors is find, understand and personally investigate a planet on which are the optimal conditions for life.

Faster than Light: the Dream of Interstellar Flight

A co-production of Spitz Creative Media, Mirage3D, Thomas Lucas Productions, Inc.

The impulse to strike out into the unknown, to see what's over the horizon is as old as humanity. Today, a whole new horizon beckons. Scientists now believe that our galaxy is filled with solar systems, including up to 9 billion Sun-like stars with planets similar to Earth. Astronomers are racing to find habitable worlds, including any that might exist in the neighborhood of our Sun. But if we find one, how will we ever get there? How long will it take? What rocket designs might one day conquer the voids of space? *Faster Than Light! the Dream of Interstellar Flight* will dazzle audiences with virtual rides aboard spacecraft of the future. They are based on whole new technologies designed to achieve ultra-high speeds, using exotic next generation rocket fuels and breakthrough concepts in physics. How far can our technology take us? *This project is supported by the Commonwealth of Pennsylvania and the Pennsylvania Film Office.*

Kyma

National Film Board of Canada

This 360° dome film celebrates human intuition and its capacity to image the invisible and sing the inaudible. Immersed in the action, spectators take part in the motions of the cosmos, at once simple and complex, always extraordinarily rich. In this voyage through the world of waves (*Kyma*, the title, is the Greek word for "wave"), light and sound envelop us and transport us from the infinitely large to the infinitely small—emphasizing, in the middle, the locus of living things.

Mars 1001 Teaser

Mirage3D, The Netherlands

Mars 1001, a mission that will last 1000 days to fly the first humans to Mars and return them safely to Earth.

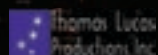
The Pyramids: the Secrets

INCEPTION Studio, Egypt

A short fulldome film about the Pyramids, including interesting information about the Great Pyramid, one of the world's wonders.

SOLAR SUPERSTORMS

NARRATED BY BENEDICT CUMBERBATCH



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"Donna Cox stands at the center of some of the best-known and innovative projects available in the immersive community," said IMERSA CEO Dan Neafus. "We all owe her and her team a great debt for their significant contributions to the world of fulldome film. This honor is truly the highest accolade we can give to someone who has had such a profound impact on our profession."

DONNA COX

Each year the IMERSA Board of Directors presents the prestigious Lifetime Achievement award to a member of the immersive community whose contributions have advanced the practice of immersive art and science. This year's honoree is Dr. Donna Cox, known for her visualization work at the National Center for Supercomputing Applications at the University of Illinois at Champaign-Urbana.

Scientific Visualization in the Fulldome Realm

Donna Cox's work involves taking huge scientific data sets and turning them into scientifically accurate and pleasing visualizations. These can be incredibly complex, particularly when they are based on very massive science data collections. She and her team work intensively with the data to make the scenes "click" both scientifically and artistically. "Handling large scientific datasets from supercomputers is the biggest challenge in creating scientific

visualizations for fulldome presentations," she said. In addition, big data sets can have visual artifacts that become much more visible in high-resolution immersive production-quality images such as fulldome."

In such cases, she and the producers need to take great care with these challenging visualizations. Some of them are the result of synthesis between large-scale computational scientific models. The production of *Solar Superstorms* for Spitz Creative Media and Thomas Lucas Productions, is a good example of the work needed to utilize these models. "In that fulldome show, we transitioned from one supercomputer simulation showing the surface of the Sun with a seamless flight to the magnetic plasma under the surface," she said. "We also transitioned to the convection in the interior of the Sun."

Each of those transitions moved between complex computer models, which are part and parcel of data science in the

astronomical realm and can be challenging. "Another example is the integration of data of a molecular cloud inside of a simulation of a protoplanetary disk while in a fly-through of the Milky Way model," she reminisced. As artists and storytellers, Cox and her production teams work very closely with other science teams to synthesize sometimes very different scientific models into a continuously flowing story. "What we do helps people understand the complex processes in the big picture of the universe."

Teamwork is Key

Donna strongly stresses the importance of teamwork between production teams. Her group worked extensively with Mike Bruno of Spitz Creative Media and Thomas Lucas Productions on *Solar Superstorms*, as well as on the *Dynamic Earth* fulldome show. Bruno, a long-time planetarian and fulldome producer, pointed out that the collaboration between the teams has always been very unique and rewarding. "Our role in these projects has been to create story

elements that support and provide context to NCSA's amazing numerical scientific visualizations," he said. "A wonderful aspect of our relationship has been the preservation of each team's autonomy, allowing each to shape both the story and the visual style of the program, drawing upon our own unique databases and techniques. There's a lot of back and forth, and the best ideas always seem to win. We have 100% confidence that whatever Donna's team generates is going to look great because their standards are extremely high, and they are the best in the world at their craft."

Accuracy Matters

Creating the best, most accurate shows with high entertainment value is a cornerstone of immersive production for science-based immersive experiences. Concerns for accuracy are threaded throughout Dr. Cox's work, and her team works directly with scientists who review the accuracy of the data visualizations throughout the creative computing process. "Often, we have flexibility in color or artistic treatment," she said. "In some cases, we must alter the spatial scale in order to see phenomena or to travel in human time to visit other parts of the universe."

For example, a show taking audiences back to the Big Bang would have to have some alterations for the sake of the story. "If we COULD travel back in time to that period," she said, "we would not hear anything. But then, again, ears would not have evolved from our point of view. So, scientific accuracy is also considered with the perspective that we are human storytellers using a limited digital medium. We are always willing to adjust the story if it might mislead our audience or leads them astray from the most important science to be conveyed."

A Career in Visualization

Donna Cox has worked in scientific visualization for 30+ years. She holds the Michael Aiken Endowed Chair at NCSA and is a steering committee member and Director of the Advanced Scientific Visualization Laboratory. Her team's work enhances some of the most successful fulldome shows seen

by millions world-wide, including *Black Holes: The Other Side of Infinity*, an NSF-funded show shown at 200+ fulldome theaters and translated into 15 languages. Her team's work also appears in *Dynamic Earth*, and shows from the California Academy of Sciences and the American Museum of Natural History. The team provided visualizations for the IMAX films *Cosmic Voyage*, *Hubble 3D*, and most recently, *A Beautiful Planet*, as well as a number of traveling exhibitions.

Photos (facing page): Dr. Donna Cox, Director, Advanced Visualization Laboratory, National Center for Supercomputing Applications. Still from *Solar Superstorms: A turbulent pulse of solar plasma interacts with Earth's magnetic field*. The composited scene consists of a simulation by Homa Karimabadi, University of California, San Diego, and visualization by Donna Cox's team at the Advanced Visualization Lab, National Center for Supercomputing Applications, U. of Illinois.



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A BIG THANKS to all of our session producers, panelists, keynote speakers and presenters for your efforts in making the 2017 Summit a big success!



Monica Bolles, *Production Matters session producer*

www.dnms.org

Monica Bolles is a Master's student pursuing a degree in Creative Technology and Design through ATLAS at CU Boulder. She has a background in audio engineering and music production. Currently her research lies within working with sound in three-dimensional environments and creating immersive and interactive experiences.



Dr. Donna Cox, *Keynote Speaker and Lifetime Award Recipient*

www.ncsa.illinois.edu/People/cox

Donna holds the Michael Aiken Endowed Chair at NCSA and is a steering committee member and Director of the Advanced Scientific Visualization Laboratory. Her work on scientific visualization has enhanced and been at the heart of some of the most successful fulldome shows seen by millions world-wide.



Michael Daut, *Camera Matters, and Technology Matters sessions producer/co-producer*

www.es.com

Michael is Creative Director/Marketing Director for Evans & Sutherland. He has a passion for immersive media and is an award-winning writer, producer, and director for fulldome videos, theatrical productions, music videos, live concert videos, commercials, documentaries, corporate videos, and trade show presentations.

He has a BA in Media Communications with a video/film emphasis from Webster University, where he also served as an adjunct professor.

Since joining Evans & Sutherland in 1998, he has helped develop a library of shows for the digital fulldome community and created the world's first digital fulldome film for SIGGRAPH '99 in Los Angeles. He also helped create the world's first digital fulldome transfer of a giant screen film, Africa the Serengeti in 2007. He also produced the first two 8K Digital Dome Demos for GSCA and co-produced last year's True8K event with members of the Technical Committee.

Michael is a member of the Producer's Guild of America, a founding member of the Association of Fulldome Innovators, a member of the Telly Awards' Silver Council, a board member of the Giant Screen Cinema Association, and a board member of IMERSA.org.



Paul Fraser, VR/AR Matters session producer
www.blazedigitalcinema.com

Paul Fraser is president of Blaze Digital Cinema Works, a consulting and project management firm specializing in business planning and development for clients with an interest in digital cinema in virtually any of its forms, flat screen or dome, and in all functions: content development, distribution & exhibition. As the principal of Blaze, Paul serves clients in both the giant-screen (GS) and fulldome (FD) sectors: for producers, he provides executive production services; for distributors, he handles licensing. Blaze has represented several producers releasing fulldome versions of GS titles, and more recently the reverse—transforming stereo FD shows for flat screen digital 3D. Blaze also does feasibility studies for digital flat screen and fulldome theaters, and acts as owners rep in helping acquire a new system.



Matt Heenan, Business Matters/Business Models session producer
www.amnh.org

Working alongside colleagues from the Hayden Planetarium and the Rose Center for Earth and Space, Matt is responsible for the licensing of space show content both domestically and internationally, including *Dark Universe*, *Journey to the Stars*, *Cosmic Collisions*, *The Search for Life*, and *Passport to the Universe*.

Originally from New Zealand, Matt speaks about museum and planetarium marketing at conferences around the world, and often presents to museum staff about how best to utilize Twitter and other social media (you can find him on Twitter at @mattpaheenan).



Ian McLennan, System Matters session producer
ianmclennan.com

Ian McLennan is IMERSA's 2015 Lifetime Achievement honoree for his long-term contributions and work with the immersive and fulldome community. Ian's career began with a short stint in news broadcasting in the 1960s before being named founding director of the Queen Elizabeth Planetarium in Edmonton, Alberta. He has moved through a succession of high-profile institutions, including executive directorship at the Strasenburgh Planetarium Rochester, NY and a later stint at Ontario Place. He currently travels the world consulting with people at institutions in areas as diverse as central America and Asia. In each assignment he shares his knowledge about how make visitors happy. Today, that wealth of experience is very relevant to IMERSA members as they go about creating new worlds of entertainment, education, and more.



Dan Neafus, IMERSA Host and Technology Matters session co-producer
www.danneafus.com

Director and Co-founder of IMERSA, Dan has produced engaging audience experiences for more than 35 years, and continues to do so as Operations Manager of one of the finest immersive theaters in the world, the Gates Planetarium. His consulting firm, Neafus Network, provides public and performance artworks across

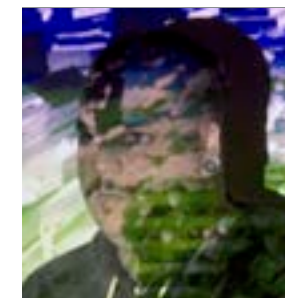
the country. With an emphasis on technology, Dan utilizes many tools in his work, from supercomputer graphics, to 3d sound and automated lighting. As Executive Producer, his fulldome productions include; *Black Holes the Other Side of Infinity*, *Supervolcanoes*, *Cosmic Journey: A Solar System Adventure*, *Bella Gaia: Beautiful Earth*, and *Dynamic Earth*, which have been distributed to theaters worldwide. Dan is a frequent speaker at international conferences focusing on "The Language of Fulldome", "Immersive Cinema" and fulldome standards development. By collaborating with and inspiring fellow visionary pioneers he has charted a course for the future of domed theaters and the immersive experience.



Kim Nickels, Audience Matters session producer

Kim is an accounting and finance professional with 25+ years of experience. Since 2014, she has been doing accounting, finance and tax work for businesses in several industries, including production accounting for Sean Casey and National Geographic's giant screen film *Extreme Weather*. From 2008 through 2014, Kim was the VP of Finance and Operations for the Putnam Museum in Davenport, Iowa. She was a decision-making member of the museum's digital theater conversion task force and was responsible for programming of the giant

screen theater, including content selection, contracting, ticket pricing and scheduling. Programming included traditional giant screen documentaries, current and repertory Hollywood content, cable TV/ sporting events, concerts, local filmmaker events, kids' programming, and corporate presentations. Kim is a member of the Giant Screen Cinema Association's Event Planning and Industry Development Committees, and is Co-Chair of the Alternative Content Special Interest Group.



Ty Owen, Art Matters: Creativity in the Dome session producer
www.cosi.org

Ty Owen is an artist who has been working in the field of sound art, experimental music, and video for the last 15 years. He joined the Center for Science and Industry (COSI) in 2010 and over the past seven years developed experiences in video game and media production, animation, computer programming, robotics, quad copters, 3D modeling and 3D printing. Currently the Manager of Theater Programs he creates original programming for the COSI

Planetarium and founded Dome Lab at COSI, a monthly meetup group for artists, musicians, makers, tinkers and others interested immersive media in a dome format.



Carolyn Collins Petersen, Producer, Lifetime Award Ceremony
www.lochnessproductions.com

Carolyn Collins Petersen is CEO of Loch Ness Productions, a long-time fulldome production company. She is acutely interested in the fulldome medium's ability to provide cinematic approaches to storytelling that engages audiences.

As an award-winning science writer, Carolyn has more than three dozen fulldome shows to her credit, and has narrated several shows for other producers. She has written several astronomy books, online audio and video series about astronomy and space science, and was senior author for major exhibits at Griffith Observatory, NASA's Jet Propulsion Laboratory, and the

California Academy of Sciences. She writes regularly about astronomy on her own blog, *TheSpacewriter's Ramblings* (www.thespacewriter.com), and for Space.About.com (<http://space.about.com>). Carolyn studied education and astronomy at the University of Colorado, and earned a graduate degree in mass communications (science emphasis, and minor in telecommunications engineering) in 1996 from CU, where she also worked on a *Hubble Space Telescope* instrument team. She spent several years as an editor and writer at Sky Publishing. She is a speaker for the Smithsonian Travels program, a Fellow of the International Planetarium Society, and a member of the American Astronomical Society.



Mark C. Petersen, Pro. Show Producer

www.lochnessproductions.com

Mark C. Petersen president and founder of Loch Ness Productions, is a long-time producer of classic and full-dome planetarium shows, and broadcast and online videos for clients as diverse as MIT Haystack Observatory, Software Bisque, and the International Dark-Sky Association. He has more than three decades of experience as a soundtrack producer and space music composer. Mark has also created original music and custom soundtracks for major planetaria, Sky-Skan, Evans & Sutherland, NASA News Net's coverage of the Voyager encounters, and video press and Web releases as well as the popular exhibit "ViewSpace" from the Space Telescope Science Institute. He has more 13 albums of electronic and space music to his credit.

A Fellow of the International Planetarium Society, he served on the Executive Council from 1985 to 1990. He personally undertook the development and annual publication of the IPS Directory of Planetaria and Planetarians. Mark is intensely interested in the growth of full-dome and immersive theaters and content, and maintains the world's most extensive databases of domed theaters and full-dome presentations. He makes a subset of that data available on the company Website as the Full-dome Theater Compendium, as well as the very popular Full-dome Show Compendium. He also periodically publishes a State of the Dome Address, detailing the current state of the domed theater community.



Samantha Richards, Interaction Matters session producer

www.dmns.org

Samantha Richards joined the Denver Museum of Nature & Science in 2010. Prior to joining the Museum she was the volunteer coordinator at the Molly Brown House Museum and director of public programs at the Paleontological Research Institution and its Museum of the Earth. Richards earned her master's in museum studies from the University of Colorado at Boulder and her bachelor's in environmental geology from the University of Michigan. She is the educator for the permanent exhibitions *Prehistoric Journey* and *Space Odyssey*. She also served as the educator for the temporary exhibitions *T. rex Encounter*, *A Day in Pompeii*, *Mammoths and Mastodons: Titans of the Ice Age*, *Maya: Hidden Worlds Revealed*, *Chocolate: The Exhibition* and *Robot Revolution*. Samantha also supports live planetarium programming in the Gates Planetarium.



Mark SubbaRao, Accuracy Matters session producer

www.adlerplanetarium.org

Mark SubbaRao, IPS President and Adler Planetarium astronomer, received a BS in engineering physics from Lehigh University and an astrophysics Ph.D. from The John Hopkins University. He worked as a researcher at the University of Chicago on the Sloan Digital Sky Survey, and is an author on more than 100 scientific publications.

Mark directs Adler's Space Visualization Laboratory and led development such exhibition galleries as *The Universe: A Walk Through Time and Space*. He has produced, written and directed HD, stereoscopic videos and full-dome planetarium shows, including *Welcome to the Universe* and *Cosmic Wonder*. His visualizations appear in print and television. He was part of a team that created a first-prize-winning visualization in the 2011 International Science and Engineering Visualization Challenge, and on a team awarded the best visualization at XCEDE 2013. Mark chairs IPS's Task Force on Science and Data Visualization, and is a member of the Data Visualization Advisory Committee of the Research Computing Center at the University of Chicago. He represents Adler Planetarium on the LSST project. Asteroid 170009 Subbarao is named for him.



Ryan Wyatt, Strategy session producer

www.calacademy.org

Ryan Wyatt is Director of Morrison Planetarium and Science Visualization, California Academy of Sciences (San Francisco), and Founding Director of IMERSA. He has written and directed the Academy's full-dome features. Wyatt has also worked as Science Visualizer at the American Museum of Natural History in New York City; previously, he opened technologically-advanced planetariums in Phoenix, Arizona,

and Albuquerque, New Mexico. Wyatt's professional interests include making research data sets accessible to the public, and developing standards and "best practices" for full-dome. He has written for *Natural History* magazine and the *Informal Learning Review* about the role of modern planetariums in bringing cutting edge science to audiences. His "Visualizing Science" blog provides an informal look at his ideas related to visualizing science. Wyatt also indulges avid enthusiasm for archeoastronomy, the history of science, and intersections between art and science.



Ka Chun Yu, Design Matters session producer

www.dmns.org

KaChun Yu is the Curator of Space Science at the Denver Museum of Nature & Science. KaChun joined DMNS in 2001 as part of a team tasked to create planetarium software to visualize the known universe. He works extensively to create new educational content and visualizations for digital dome displays and Science On a Sphere, and researches the most effective ways of using this

technology in education. KaChun is one of the founders of the Worldviews Network, a group using immersive visuals to place Earth in a cosmic context, and to connect public audiences with ecological and biodiversity issues. He has been involved with observational programs using Hubble Space Telescope, and ground-based optical, infrared, and radio observatories around the world.



THE JENA FULLDOME FESTIVAL: HIGH AND ROUND!

The venerable Jena Fulldome Festival returns with a renewed sense of purpose and spirit from May 17-20th, 2017. We will witness an iconic shift away from the world of flat, rectangular frames towards surround, spatial spheres, pioneered by Planetariums, digital fulldome theatres and 360-degree virtual reality devices. In the age of immersion, producers and creators are ready to break free from flat world restrictions, broaden their minds to the fullest of their domes and celebrate HIGH and ROUND!

The festival takes place at the Zeiss Planetarium Jena. Past festivals have featured many award-winning full and short-subject shows, as well as workshops, presentations, and friendly camaraderie between attendees.

For more details about the festival, including submission guidelines, lodging and sponsorship opportunities, check <http://fulldome-festival.de/>.

NEWS UPDATE

FULLDOME UK is a not-for-profit association supporting artists and researchers working within Fulldome immersive environments to promote fulldome as an artistic medium. It has partnerships with like-minded organisations and events around the world including SAT, the Jena Fulldome Festival, and IMERSA. The team behind FULLDOME UK have also curated and assisted in the production of satellite events and screenings in Russia, Egypt, Brazil and Austria. The event has pioneered real-time and VJ performances in the dome in 2012, 2014 and 2016. In 2016, FULL-DOME UK expanded our call for submissions to include the burgeoning world of VR. FULLDOME UK plans its next event in November 2018.



FULLDOME FESTIVAL BRNO 2017

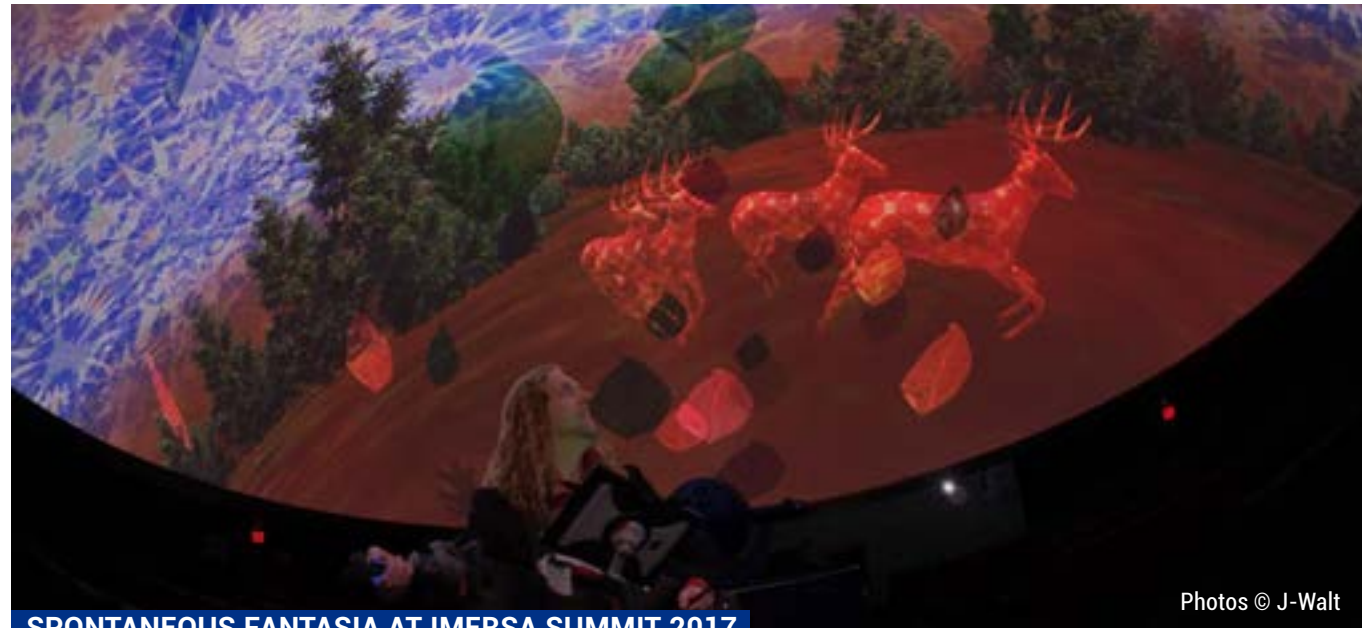
© Brno Observatory and Planetarium

There is something wonderful happening in the Czech Republic this June for fans of immersive media. Not only will you visit a wonderful city full of nice people and hundreds of places worth seeing, but you will also have an opportunity to visit one of the biggest fulldome festivals in the world, the Fulldome Festival Brno 2017.

Since 2014, the Brno Observatory and Planetarium has hosted three international fulldome festivals. In 2016, visitors saw 66 shows in three days. Such a festival is an unforgettable event and a great opportunity to stay in touch with the fulldome community.

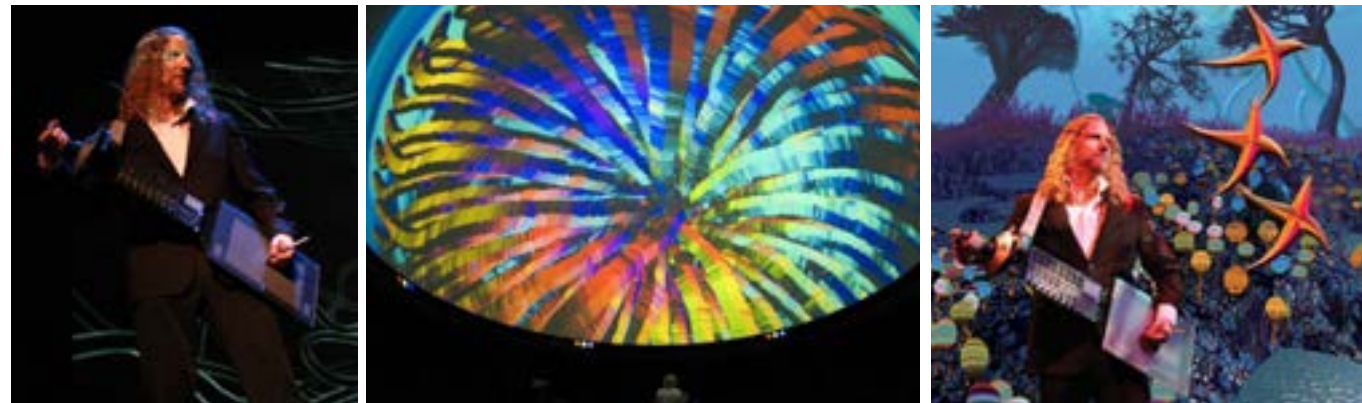
We invite you to the Fulldome Festival Brno 2017. It takes place from June 7 to June 9, and will feature dozens of fulldome shows. You will meet producers, planetarians, and even some special guests. The festival atmosphere is always friendly, the meals are delicious, and the good wine never runs out. Add in some outside-the-festival events, and it's sure to be a good time! For more information, visit www.fulldomefestivalbrno.com see you in June!





SPONTANEOUS FANTASIA AT IMERSA SUMMIT 2017

Photos © J-Walt



IMERSA is proud to present a live performance of *Spontaneous Fantasia*, a live musical visual experience performed in the immersive environment of the dome. It is created by the artist J-Walt Adamczyk using interactive computer graphics. This 30-minute performance features otherworldly animations created "on the fly" via J-Walt's exclusive Anitar instrument, choreographed to music. J-Walt has performed around the world, enchanting audiences with his visions of the cosmos. **Don't miss his performance on Saturday, February 25, 7:30 p.m. in the Gates Dome!**



PRO.SHOW

Photos © IMERSA



Members of IMERSA are vendors, producers, content providers, and consumers of many services. In other words, we're all vendors and participants in the marketplace.

Pro.Show is everybody's time to shine!

This year, IMERSA is pleased to offer Pro.Show on Friday, February 24, 2:00 to 5:00 p.m.

It's an unopposed 3-hour block of time, promising to be an enjoyable session of networking and demonstrations by producers, equipment vendors, artists, software developers, composers, and others involved in the immersive community.

Last year's Pro.Show garnered high praise from participants, who cited the relaxed atmosphere and ample unopposed time set aside for attendees to mix and mingle, gawk and talk.

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| | | |
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| Terry Trieu | Video Engineer | Phoenix Visual Arts |
| Ryan Wyatt | IMERSA Board and Summit Chair | California Academy of Sciences |

On behalf of the Board and the entire Summit 2017 team,
we are grateful for the generous support of our friends below.

Thanks to you all!

Ben Gondrez, IMERSA Video team

Ryan Oestreich, SIE Center

Bryce Buchanan

Fulldome show encoding, E&S

Ryan Jackson

HD Video, Full Circle Visuals

Ryan Meyer, DoubleTree by Hilton Denver

Jacob Kristensen, 2018 Summit, COSI

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Janire Najera, *photographer*

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Ed Scholz, V.P. Operations and Technology,
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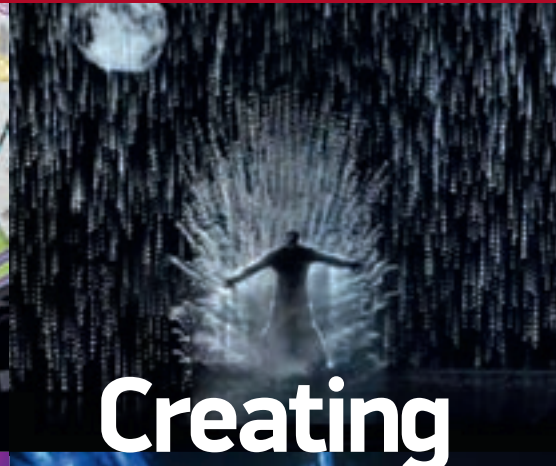
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