

First International  
FullDome  
Festival in Russia



# Reflections of the Universe

Первый в России  
Международный фестиваль  
научно-популярных  
полнокупольных программ для планетариев

# Отражение Вселенной



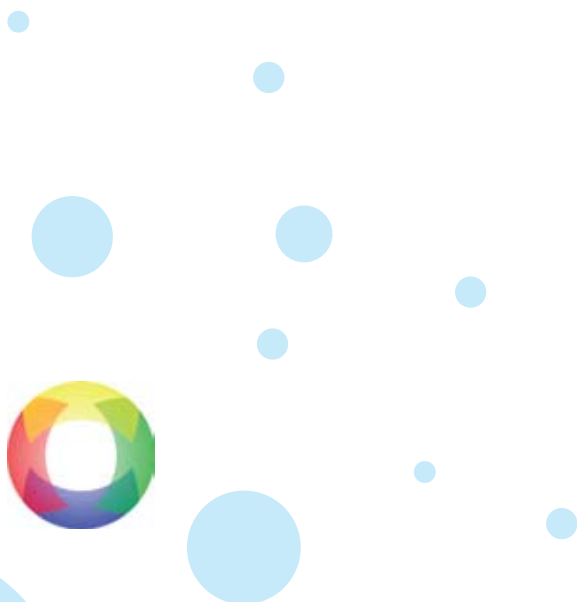
First International  
FullDome  
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# Reflections of the Universe

devoted to the 50th anniversary of the space flight of Valentina Tereshkova,  
the first woman in space

## Program

October 21–23, 2013  
Yaroslavl



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# Отражение Вселенной

посвященный 50-летию полета в космос первой женщины-космонавта,  
Героя Советского Союза Терешковой Валентины Владимировны

## Программа

21–23 октября 2013 года  
Ярославль



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In the brochure the abstracts of Festival proceedings (fulldome programs, presentations, workshops, talks) are presented. Achievements and creative works of planetariums from Australia, Asia, America, Africa, Europe and more than 30 regions of Russia are also demonstrated.

The proceedings stimulate to the expansion of planetarium activity fields, initiate the creation of intellectual property objects and shape the human mind through the realizing of its place in the world.

#### Organizations:

Cultural and Educational Center named after Valentina Tereshkova, Mirage 3D bv, Softmachine GmbH, Ilusa Media, Ralph Heinsohn Artworks, University of Applied Sciences (Kiel), Botanic Gardens (Kiel), Sky-Skan Inc., Franklin Institute (USA), Spitz Creative Media, Thomas Lucas Productions, Inc., The Denver Museum of Nature & Science, Donetsk Planetarium, Aayushi Animations, Melbourne Planetarium, Museum Victoria, Nizhny Novgorod Planetarium, Saint-Etienne Planetarium, Fulldome Film Society, Morehead Planetarium and Science Center, Rakete Bildproduktion GbR, Taucher Sound Environments UG, Large Novosibirsk Planetarium, Clark Planetarium, Planetarium Armed Forces (Moscow), ARTS Lab., University of New-Mexico, Nicolaus Copernicus University, Diana Reichenbach, Thad Anderson (USA), Kaluga Planetarium, Aeronautica & Ilya Lagutenko, Felix Media PTY LTD, V. I. Baldych, “Svensons ART MEDIA” LLC, MSU

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ББК 22.6 я 434  
О 66

О 66 Отражение Вселенной: Программа первого в России Международного фестиваля научно-популярных полнокупольных программ для планетариев, посвященного 50-летию полета в космос первой женщины-космонавта, Героя Советского Союза Терешковой Валентины Владимировны, Ярославль, 21–23 октября 2013 г./ сост. Е. Н. Тихомирова, А. В. Лобанов, И. Н. Трофилева, – Ярославль: Изд-во Индиго, 2013. – 40 с.

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В издании представлены аннотации материалов Фестиваля: полнокупольных программ, семинаров, мастер-классов, а также продемонстрированы достижения и творческие работы планетариев Австралии, Азии, Америки, Африки, Европы и более 30 регионов России.

Материалы способствуют расширению сфер деятельности планетариев, иницируют создание объектов интеллектуальной собственности и формируют мировоззрение человека через осознание его места в мире.

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# Fulldome shows



## DINOSAURS @ DUSK, ORIGINS OF FLIGHT

Mirage 3D bv

Dinosaurs at Dusk is a learning adventure of a father and his teenage daughter Lucy, who share a fascination for all things that fly.

## LIFE OF TREES. THE ADVENTURES OF DOLORES AND MIKE

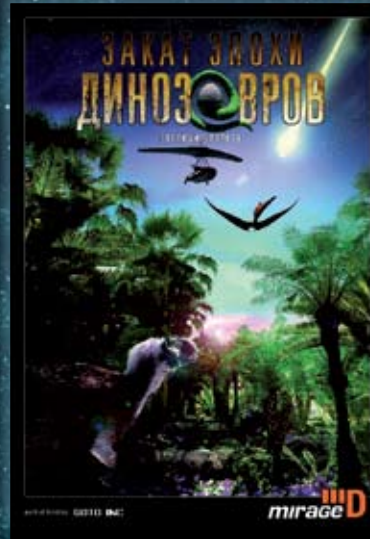
SOFTMACHINE GmbH and ILUSA MEDIA  
produced and directed by PETER POPP, Germany

In The Life of Trees a cheeky ladybug called Dolores and a quirky firefly called Mike take the audience on an adventurous journey of exploration into the wondrous world of trees. Taking the perspective of insects, the fulldome film reveals the magic of the microcosm.

On their excursion these two creepy-crawlies zip around a tree, and in doing so, playfully learn its secrets: How do plants get their food from the sun? How do they grow? How does water get from the roots to the top of the crown? And how does all this make life on our earth possible?

The Life of Trees is a new kind of fulldome show. By following the concept of edutainment, the plot intertwines entertainment with education. Exciting and informative at the same time, this combination creates the best learning effect.

The immersive film technology leads to a decelerated presentation and allows the audience to perceive more intensive what is being shown in a round format. Audience becomes active participator and gains an all around view of the scenery. It is the most exciting way of mixing education and entertainment. SOFTMACHINE achieves with The Life of Trees a perfect narration to raise awareness for never-before-seen world of trees and their utmost importance for our lives.







## THE SECRETS OF “LIVE” SPACE

Cultural and Educational Center named after Valentina Tereshkova, Yaroslavl, (Russia) Designer V. V. Jhurin, Scenario, announcer E. N. Tikhomirova, Idea, scenario N. I. Perov

It is brightly shown – almost all information concerned UFO may be explained based on properties of natural or artificial celestial bodies and well-known physical effects in the atmosphere of the Earth and on the surface of our planet.

In the considered program the majority of interesting examples are given. For the interpretation of UFO the Sun, the Moon, comets, bolides, Venus, Mars, Jupiter, clouds and smokes of unusual form, inversion paths of airplanes, rockets and others cosmic apparatus, as well as these apparatus, kites, cosmic objects, burned in the earth's atmosphere, explosions and ejections of chemical substance, injections of charged particles, artificial meteors, a skeins, a swarm of insects, light effects, as a searchlight beam moved on night clouds (the apparent velocity may be high speed), still images like patch of light (for the determined position of light source), different mirages are used. In the last case the earth's objects are seemed like soaring in the sky.

In the experiment “ZNAMYA” (elucidation of north cities) – 1993 year. – 4-km pot during 6 minutes moved from France to Belarus and euro peers did not understand what happened.

In some cases only with help of the scientifically proved psychophysiological effects the unknown celestial phenomenon may be interpreted.



## DARWIN AND HIS FABULOUS ORCHIDS

Ralph Heinsohn Artworks (Hamburg/Germany) in Collaboration with University of Applied Sciences Kiel and Botanic Gardens, Kiel/Germany

On the occasion of Darwin Year 2009, this film was designed for digital planetariums and science centres. Instead of astronomy it presents the fascinating world of evolution biology and the life and work of Mr. Charles Darwin, illustrated by his research with orchids. The show combines the spectacular imagery of botany, documents of the life of Mr. Charles Darwin and the evolution theory and assembles it to a enlightening experience inside the immersive video projection of a digital dome theatre.

## TO SPACE AND BACK

Sky-Skan Inc. (USA) in association with the Franklin Institute, USA

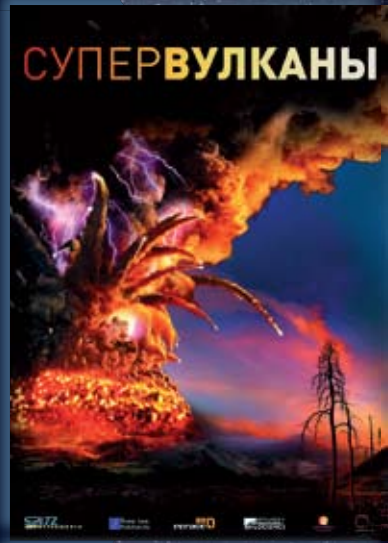
Space exploration – our greatest adventure is having a big impact on your life. It's shrinking the world into a gadget that fits into the palm of your hand – but it doesn't stop there. This is the amazing story of how space exploration is now part of your everyday life. What's happening above is coming back down to Earth! Discover how space exploration is shaping your world...



## SUPERVOLCANOES

Spitz Creative Media, Mirage3D, Thomas Lucas Productions, Inc., in association with the Denver Museum of Nature & Science, USA

Feel the Heat! Supervolcanoes explores rare types of volcanic eruptions that marshal the energy that lurks, like a sleeping dragon, beneath the surface of planet Earth. The story of these big blow outs is a tale of havoc and mayhem: mass extinctions, climate collapses, and violence beyond anything humans have ever witnessed. In this unique immersive experience, audiences will explore the impact of volcanism on Earth and other worlds in our solar system. Can a supervolcano erupt in our own time? The answer is surprisingly close to home.



## ALIEN ACTION

Ralph Heinsohn Artworks (Hamburg/Germany) in Collaboration with University of Applied Sciences Kiel, Germany

By a combination of 360°-music-video-clips, animations, radioplay elements and interactive parts Alien Action merges this classic theme of space invasion with the history of human expansion, design, music and visual effects. In best tradition of pop-art the show combines the classic science fiction theme with irony and humor and its music-clip-structured dramaturgy to a completely new chapter of digital entertainment.







## WATER – A MIRACLE OF NATURE

Donetsk Planetarium, Ukraine

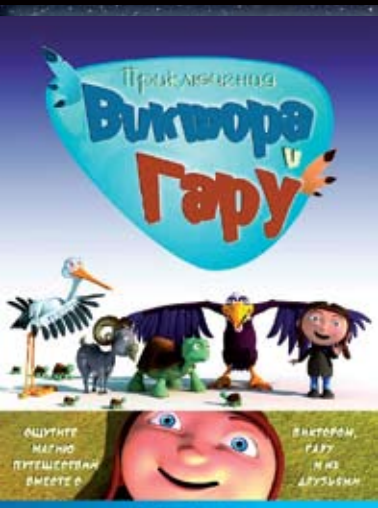
Water, what can be simpler? There is no life without it. Beautiful exciting full-dome show will introduce you to amazing world of the water. Funny adventures of small Drop allow you better understand complex travel of water in nature.



## AIR GHOSTS

Donetsk Planetarium, Ukraine

Where you can meet Broken Ghost or Flying Dutchman? How the mirages, halos and crowns form? The striking optical phenomena are on the dome of the planetarium!



## THE ADVENTURES OF VICTOR & GARU

Ilusa Media, Spain

An inspirational invitation to travel that aims to stimulate the urge to discover, and initiates youngsters into the wonderful world of travel.

At the same time it encourages friendship and the idea that we should work together in life and understand the needs of others: friendship and help are more than just the sum of their parts.

VICTOR AND GARU stimulates interest in geography with its range of locations including town and country, mountains and rivers, seas and woods, desolate peaks and tropical beaches; there are even underwater scenes and references to the weather.

Perception of shapes and colours is also stimulated as we see the vivid colours of nature and the forms to be found in the landscape. Natural sciences are shown in diverse animals, plants, geological formations and atmospheric phenomena. Even the names and dialogues of the characters pave the way towards literature and art.

## 8 SCOOPS OF MILKY WAY

Aayushi Animations, India

In the side arm of spiral galaxy Milky Way we share a small home with a fascinating neighborhood of 8 wondrous Planets and a powerful Sun. These Planets are so different from each other that they hardly can be called from one family yet they create a perfect harmony.

We've used the same harmony to create the show. From the Burning Sun, Lava-ish surface of Venus to the huge stormy belts of Jupiter or the unimaginably beautiful eclipse of Saturn, this show is full of never seen footages meant for Dome theatres.

Feel the uniqueness and beauty of our Solar system in "8 Scoops of Milkyway".



## TILT

Melbourne Planetarium, Museum Victoria, Australia

When the seasons go crazy it's up to Annie and Max to set things right. But fixing this will take something extraordinary, and a little help. Come on a whirlwind adventure as the siblings learn just how the seasons work and discover that sometimes, all we need is a new angle on the world.



## FIRST ON MARS

Nizhny Novgorod Planetarium, Russia

Girls Romashkina (Sunflower) and Piluyl'kina (Pills) and boys Neznaykin (Dunno), Znayev (Doono), Tubikov (Blobs), Vintikov (Bendum), and Shpuntikov (Twistum), schoolchildren membering the Amateur Astrospace Club "Gravitation," are united by one amazing dream: they really eager to fly on Mars. Unexpectedly they have been given a chance to become a virtual fearless crew of the "Ares" spaceship to execute a mission to the Red Planet. Curious characters, especially restless Dunno, worried about the most important issue: "Is there life on Mars?" To find it out, boys and girls take an exciting virtual journey. Will the "Ares" crew be able to succeed with this mission?







## THE BLIND MAN WITH STARRY EYES

Saint-Etienne Planetarium, France

In order to increase his power, a tyrant asks an old wise man of his kingdom to give him the secrets which would enable him to extend his power and domination. Despite his insistence, he can only elicit one answer from the old wise man: “Look at the sky and count the stars”.

When he realizes the old wise man will not give him more clues, the tyrant follows his advice and starts counting the stars in the sky. Step by step, a relationship takes place between them which will change the tyrant’s quest for domination into a quest for knowledge...



## CONSTELLATIONS

Fulldome Film Society, produced by Yaroslav Gubchenko and George Aistov (Russia)

“Constellations” is a wonderful journey to the world of stars and ancient legends.

“Constellations” is the second part of the “10 Steps through the Sky” educational course for digital planetariums. The first part of the course, “Astronomy”, has already gathered over 1 million children in many big planetariums and hundreds of portable domes around the country.

The program combines comprehensive educational material and beautiful artistic visualization. “Constellations” can be called one of the largest scale projects for digital planetariums.

The show will tell you about circumpolar constellations and how you can find them on the sky, and about interesting deep space objects that are hidden in them.

You will learn about important astronomical concepts such as magnitude, stellar brightness, and luminosity. You will be transported into an ancient Greek myth, which like an invisible thread connects the stars on the celestial sphere, and you will witness the anger of goddess Hera and Perseus’ heroic deed.

“Constellations” is the first program for digital planetariums created in Russia in 4K super high resolution. In order to make true celestial environment visualization we created a three-dimensional space structure based on scientific data, with over 130 thousand stars located precisely in their positions. We also modeled dozens of unique space objects, such as double- and triple-star systems, red giants, nebulas, star clusters, and galaxies.



## THE LONGEST NIGHT

Morehead Planetarium and Science Center, Todd Boyette, Denise Young & Jason Heinz (USA)

“The Longest Night”: A Winter’s Tale is a one-of-a-kind full-dome planetarium show that captures its audience with a timeless fable of courage, generosity and renewal.

Its story explores the concept that winter is a time for Earth to rest, waiting for new growth in the spring.

Its star, a young girl born into a family of nomadic storytellers, embarks on a simple quest that leads her to a dragon’s nest.

What will she discover there, and how will it help her save her village?

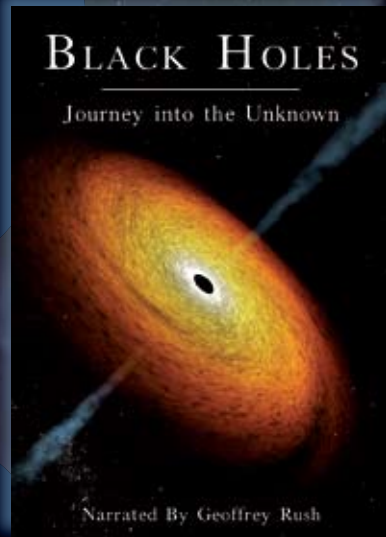
Morehead collaborated with Paperhand Puppet Intervention to develop the story and visuals of “The Longest Night.” The Morehead production team seamlessly wove together live-action video of Paperhand’s world-class puppeteers with beautiful and intricate full-dome animation to create this innovative and imaginative show. Its cast and crew comprised dozens of puppeteers and production professionals, and The Paperhand Band created original music for the show.



## BLACK HOLES – JOURNEY INTO THE UNKNOWN

Melbourne Planetarium, Museum Victoria, Australia

“Black Holes - Journey into the Unknown” explores the dark and mysterious world of black holes. Narrated by Academy Award winner Geoffrey Rush it visualizes the latest scientific data to take an in-depth look at the most bizarre creations in the Universe. Tracing our understanding of black holes from an extraordinary idea of the late 1800s, through to their unexpected detection almost 200 years later.





## PLANETS, A JOURNEY THROUGH THE SOLAR SYSTEM

Eric Frappe, Saint-Etienne Planetarium, France

Planets is a breakthrough in large format of fascinating landscapes that make up the solar system. You fly over the reliefs of Mars or Jupiter's clouds, you dive inside the rings of Saturn and you will relive the tumultuous era of planet formation. But be careful not to hit an asteroid!

# Fulldome shortcuts and clips

## LOUP GAROU

Ralph Heinsohn Artworks (Hamburg, Germany)  
in Collaboration with Rakete Bildproduktion GbR (Hamburg, Germany)

The «Loup Garou» is a fulldome movie adaptation based on the poem by the author «Annette Droste-Hulshoff from the late 19th century: a ghost story about a werewolve in the pyrenees».



## THE DOORS OF PERCEPTION

Ralph Heinsohn Artworks (Hamburg, Germany)  
in Collaboration with Taucher Sound Environments UG (Berlin, Germany)

The Doors of Perception: An audiovisual tribute to Aldous Huxleys 1954 novel in fulldome video format and 3D audio.



## THE NATIVE STAR

Large Novosibirsk Planetarium, Russia

We present some trailers of the first full-dome film "The native star", which is going to be released soon by our planetarium film studio. The film is about the Sun and its influence on the Earth. The frames were filmed with special wide-angle optical camera in Buryatia and Baikal, where the observatories of the Institute of solar-terrestrial physics are set.

## RELENTLESS NIGHT

Sky-Skan Inc., USA

Relentless Night is a full-dome short film that immerses the viewer atop the extinct volcano of Maunakea in the Central Pacific, amongst the biggest collection of telescopes ever built. Derived from the series, Awesome Light, the footage was shot over 4 years in stereo fisheye. The film provides unique views of the remarkable summit landscape at over 4,000 meters and the nightly ballet of these magnificent machines that search for secrets in the stars. Set to the haunting beauty of the Eliza Aria re-tuned to a powerful dubstep mix. Relentless Night pays homage to this tour de force of scientific discovery.

## EXPLODING UNIVERSE

Mike Murray, Dome Theatre programs Manager, Clark Planetarium, USA (the trailer of the new show)

Out of devastating events in the cosmos comes new creation. Explosive phenomena are responsible for the way we see the universe today, and not all of them happen on a grand scale. They have even shaped our very existence. As the universe has transformed into the structure we live in now, even the most elementary particles have endured. This new show follows the path of one of these "particles", a proton, as it participates in nature's astounding events of rebirth and renewal.



## EXPLODING UNIVERSE

*Out of Devastation Comes New Creation*

CLARK  
Planetarium  
Full-Dome Theater

DIRECTED BY MIKE MURRAY WRITTEN BY JOHN TANNER MOUNTED BY ADAM HOPKINS

PRODUCTION: MOUNTAIN VIEW FILMS, INC. DISTRIBUTION: THE PLANETARIUM SOCIETY OF AMERICA

WWW.PLANETARIUMSOCIETY.ORG



## AN.TA.LU (ECLIPSE)

Planetarium Armed Forces, Moscow, Russia

January 18, 653 BC. Ancient Babylon. The King Shamash-shum-ukin deathly afraid of gloomed Moon in the skies, prayed to goddess Zarpanitu asking her to protect him and his country from omened disasters.

A fulldome musical clip based on reconstruction of the real astronomical event observed more than 2.5 millenia ago.



## DOMEFEST 2012

ARTS Lab., University of New-Mexico,  
David Beining, USA

DomeFest is a juried show of some of the best and most innovative fulldome experiences ever created. Topics range from art and entertainment to science visualization and educational show outtakes. DomeFest includes works by some of the most prestigious fulldome producers as well as excellent examples of individuals' and students' experimental work in fulldome.

DomeFest is designed to demonstrate fulldome's full potential and to entertain and inspire local audiences and producers to support the theaters that screen it.

DomeFest is the world's first and premiere fulldome film festival, happening each two years. This time prepare for Dome Fest 2012. Presented by ARTS Lab, DomeFest 2012 happened in July 27–28 2012, in Baton Rouge, LA.



## SPUTNIK

Nizhny Novgorod Planetarium, Russia

The clip is dedicated to the 55th anniversary of launching the world's first artificial satellite "Sputnik" by the Soviet Union on October 4, 1957.



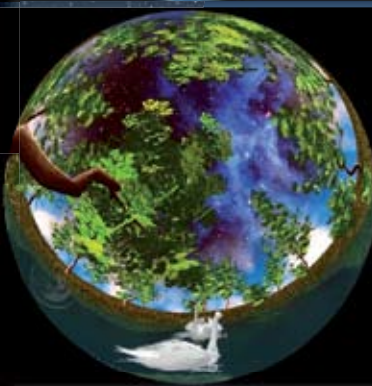




## GAGARIN

Nizhny Novgorod Planetarium, Russia

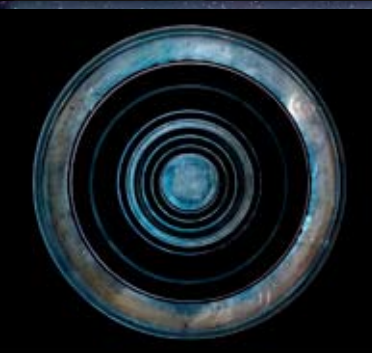
The clip is dedicated to the 50th anniversary of the space flight by Yuri Gagarin onboard the “Vostok” spaceship on April 12, 1961. Titles and front pages from Soviet newspapers of that time are used.



## OBLIVION

Nizhny Novgorod Planetarium, Russia

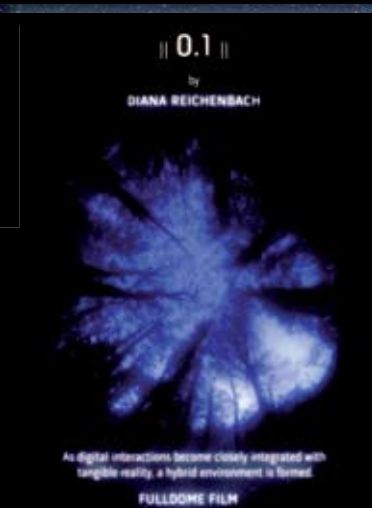
The video sketch on the composition “Oblivion” by Astor Piazzolla is a synthetic audiovisual track played live by the Municipal Nizhny Novgorod Chamber Orchestra “Solisty” in under-the-dome concerts “Musical Fireworks” and “Harmony Gardens”, joint projects with Nizhny Novgorod Planetarium.



## THE CIRCLES OF TIME

Nicolaus Copernicus University, Natalia Oliwiak, Poland

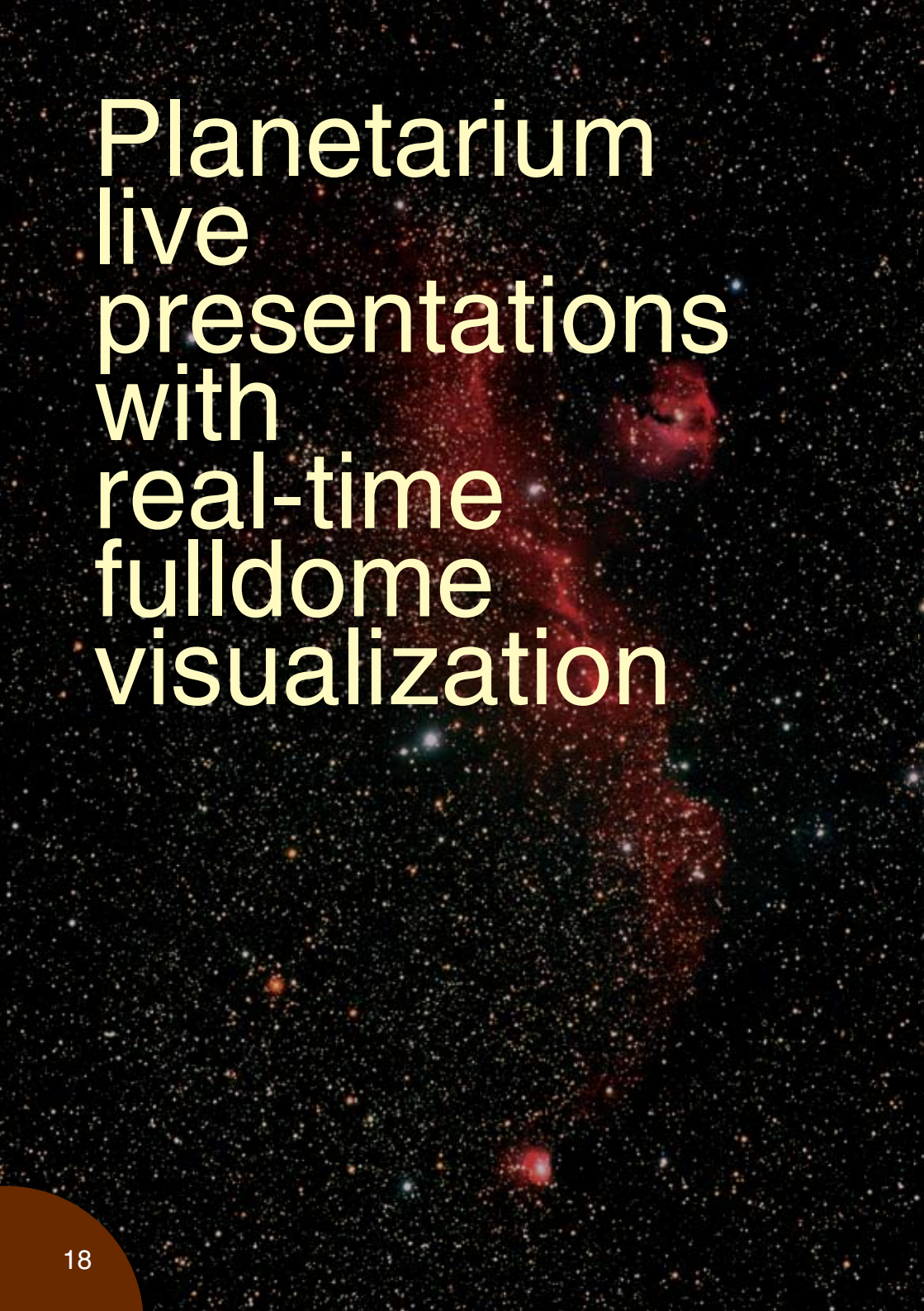
The Circles of time – experimental animation. The piece is an adaptation of the artist’s 12 abstract paintings about seasons. The animation is colorful interpretations of each month which were inspired by Mandala’s structure. Music composed by Jędrzej Rochecki.



## 0.1.

Diana Reichenbach, Score: Thad Anderson, USA

“0.1.” is an immersive fulldome animated film exploring the evolution of human perception. As digital interactions become closely integrated with tangible reality, a hybrid environment is formed.

The background of the slide is a deep space image. It features a dense field of stars of various colors, including white, yellow, and blue. A prominent feature is a large, glowing red nebula that stretches diagonally across the center-right portion of the frame. The text is overlaid on the left side of the image.

Planetarium  
live  
presentations  
with  
real-time  
fulldome  
visualization



Планетарий Культурного Центра ВС РФ, Москва

## ГАЛАКТИКА, в которой мы живем

доктор физ.-мат. наук, профессор МГУ

**ЗАСОВ**  
Анатолий Владимирович

## THE GALAXY WHERE WE LIVE

Doctor of phys.-math. sciences, professor of MSU, Anatoliy Vladimirovich Zasov; Planetarium Armed Forces, Moscow, Russia

I will talk about a huge stellar country – the galaxy Milky Way, where our Sun and planets are situated among the billions of stars around us. Although our stellar island is not the only one in the surrounding Universe, there are many types of interesting and often enigmatic astronomical objects, which may be seen and studied in detail in our Galaxy only.

## TELESCOPES ON THE GROUND AND IN SPACE

Candidate of phys.-math. sciences, MSU, Vladimir Georgievich Surdin; Planetarium Armed Forces, Moscow, Russia

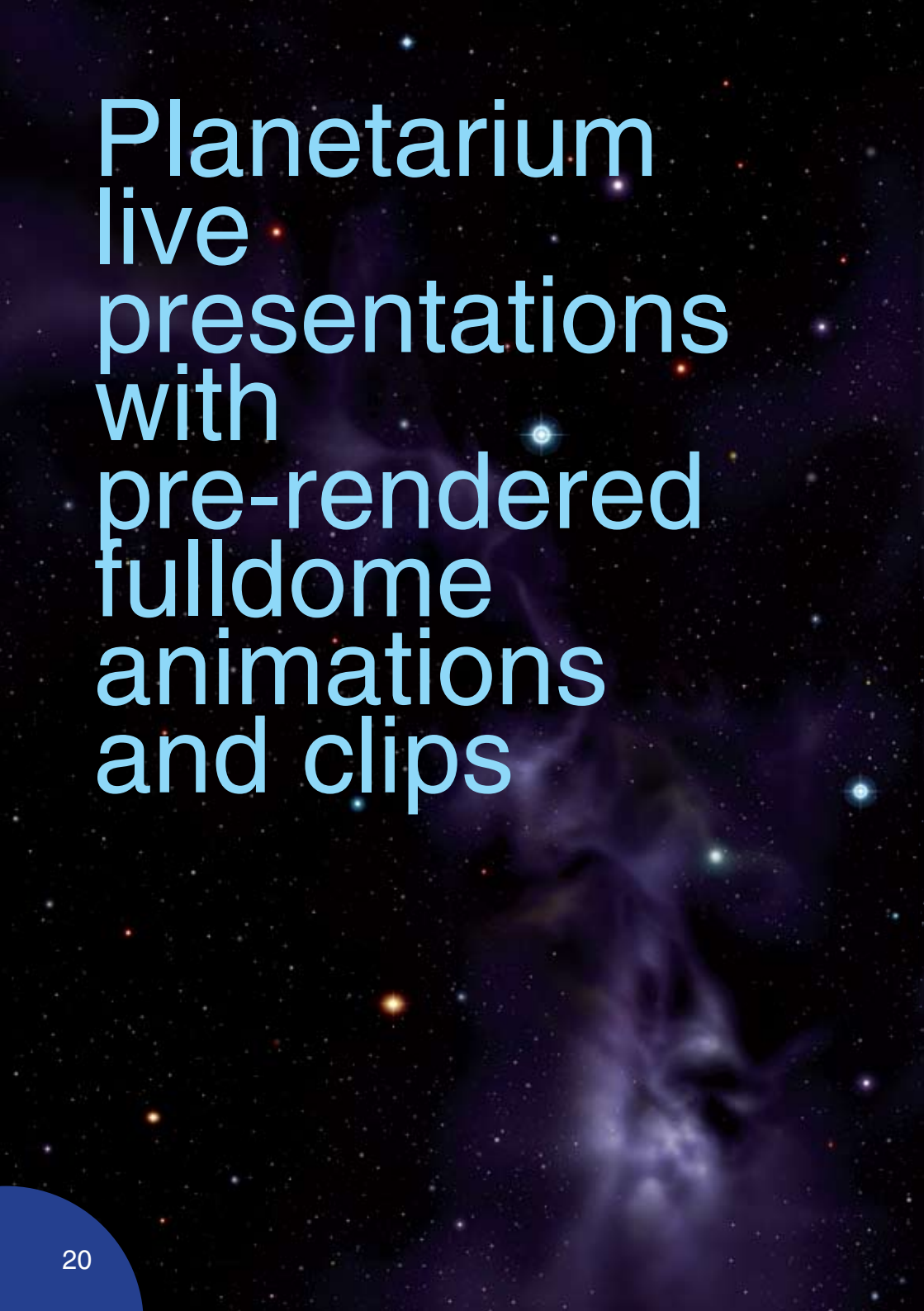
An optical telescope – the main tool of astronomers – evolves for 4 centuries. Today it is a huge complex of optical, electronic, mechanical and cryogenic units, showing us what has happened billions years ago at distances of billions light years away. For the four centuries the main enemies of telescope were the Earth's atmosphere and gravity, but now the telescope overcame them! Telescopes increase our knowledge of the Universe and guard the Earth against cosmic threats.

Планетарий Культурного Центра ВС РФ, Москва

## ТЕЛЕСКОПЫ на Земле и в космосе

кандидат физ.-мат. наук,  
с.н.с. ГАИШ МГУ

**СУРДИН**  
Владимир Георгиевич



Planetarium  
live  
presentations  
with  
pre-rendered  
fulldome  
animations  
and clips



## THE ADVENTURES OF A WATER DROPLET

The State Museum of Cosmonautics History by K. Tsiolkovsky, Kaluga, Russia

The training show is for elementary school. This show outlines the water cycle in nature, the movement of water on the surface of the Earth, in the air and under the Ground. Young viewers will learn characteristics of water, the most wonderful substance on the Earth.



## UNDER THE STARRY SKY OF YAROSLAVL

Cultural and Educational Center named after V. Tereshkova, Yaroslavl, Russia

We invite you to stroll through the sky, which can be observed in different seasons in Yaroslavl. You will learn the difference between the day of equinox and the day of solstice. You will find out why summer days are longer than winter ones. You will also learn a lot about planets and small bodies of the Solar System. You will see bright constellations of Yaroslavl's night sky in all its splendor.



# Fulldome music shows





## SYNCODE 360

Ralph Heinsohn Artworks (Hamburg, Germany);  
Music by “Software” (Mike Weisser)

“Syncode 360” is a 2012-fulldome-re-interpretation of the videoart “Syncode” by early video-artist Mike Weisser. Weisser original video was produced 1987 with music from Weisser’s Electronica-Duo “Software” for classic videoscreens (sD-Format). The fulldome version was the “opening ceremony” of a larger retrospective exhibition, entitled “Ego”, on Weissers Works (paintings, photography, installations) at Bunker-D art space and Mediendom in Kiel.



## COSMIC JOURNEY

Aeronautica & Ilya Lagutenko produced by Pavel Pechersky (Russia, Ukraine)

The video we are about to present to you now is a very unique musical show. It was conceived and produced by some of the most progressive and experimental minds in Russian show business. These are Pasha and Vlad Pechersky, known together as Aeronautica.

The show is based on the first Soviet science-fiction movie. It’s named “Space Trip” and since it’s release in 1935 it has come to achieve the same cult status as the world famous Fritz Lang film, Metropolis. French art society launched a website with a step-by-step log of the film’s production. <http://project.mettavant.fr/kosmicfilm.html>. The storyline of “Space Trip” is dedicated to the exploration of the moon, shot 26 years in advance of the first space trip ever.

The Pechersky brothers used retro-futuristic shots from this movie, and placed them onto 3-D models infusing the original story with new and exciting visual content.

Finally, the video was converted so that it could be projected onto a full dome.

The retro-futurist architecture of the original movie set was painstakingly re-created as well by their able hands and placed as an installation throughout the dome’s circumference.

All of this makes this video a real masterpiece of art and technology. Their own original soundtrack was written for the re-mastered video. The best traditions of the first electronic music pioneers were incorporated with cutting-edge music production tools and techniques. The classic space-disco works of Soviet musicians Zodiac and the French band Space as well as the sound design experiments of electronic music pioneer Jean-Michel Jarre are kept alive in this sound.

# THE SUN

Clark Planetarium, USA

This song is visually choreographed by Clark Planetarium Productions as an example of art and music interpretation. "The Sun" is from Brad Stock's new album called "The Atomic Clock" and features a variety of music styles which blend well with the dome immersive environment. The piece has already made appearances at several planetarium conferences and film festivals.

# STRETTO

Fulldome Film Society, produced by Yaroslav Gubchenko and George Aistov music by Sergey Perminov, Russia

A short clip from educational fulldome show "Constellations" produced by Fulldome Film Society and released in 2013. Clip story is about classification of stars but it based on a wonderful music soundtrack produced by composer Sergey Perminov. Music will lead audience through thousands stars and with final overture will bright dramatic death of red giant.

# CORAL REKINDLING VENUS

Felix Media PTY LTD, Australia

An extraordinary journey into a mysterious realm of fluorescent coral reefs, bioluminescent sea creatures and rare marine life, revealing a complex community living in the oceans most threatened by climate change.







## ILLUMINATOR

Composer V. I. Baldych, Planetarium Armed Forces (Moscow), Cultural and Educational Center named after V. Tereshkova (Yaroslavl), "Svensons ART MEDIA" LLC (Moscow)

Fuldome music show with elements of live performance in three parts. Beautiful view of the starry sky and amazing full dome sights of the Universe companion music of composer Vitally Baldych.

# Workshops Talks Presentations

## INDEPENDENT FULLDOME CONTENT PRODUCTION AND DISTRIBUTION IN RUSSIA

Yaroslav Gubchenko, Executive Director of Fulldome Film Society.

Production of fulldome shows is a very difficult process, that requires powerful hardware, effective task management and creative and qualified artists. It's not easy to fit all those requirements, but international experience shows us, that existence of independent private fulldome studios is possible, and product, that they create is very popular among customers. As examples of those studios we can see Softmachine, Mirage3D, Kahaya Studio and others

Today, creative studio of Fulldome Film Society is almost only one professional fulldome studio that exists in Russia. From 2010 Fulldome Film Society creates effective distribution network in Russia and CIS countries, that causes extraordinary fulldome content spreading over the region.

In this presentation will be explained how to manage creation of fulldome content within private studio of Fulldome Film Society and how to distribute a resulting product.



# CONCEPT ART DEVELOPMENT AND PRODUCTION MANAGEMENT OF FULLDOME SHOW “CONSTELLATIONS”

Anastasia Shilova, concept-artist, Alexander Potekhin, production designer, Fulldome Film Society.

Script of fulldome show “Constellations”, produced by Fulldome Film Society includes three different artistic approaches for studying of starry sky – star map navigation, astronomical visualization and space mythology. For each storyline it was necessary to create a unique artistic style and to keep them together in unified color space. This presentation reveals, how those concepts was transformed to a production design of new fulldome show.

# PRODUCTION OF HIGH-RESOLUTION FULLDOME COMPUTER GRAPHICS AND SCIENTIFIC VISUALIZATION IN FULLDOME SHOW “CONSTELLATIONS”

Vladimir Perminov, CG supervisor, Fulldome Film Society.

Motion picture production is a very complicated process. It became much more complicated in a fulldome format. Fulldome show “Constellations” is a large and difficult project from the sides of artistic work and technical realization. Star space, nebulae, galaxies, ancient myths and spacecraft – all those scenes require application of new production pipelines, that may be unusual for traditional motion picture production.

To realize all ideas from the script, we need to develop new software tools. “Constellations” created and rendered in 4K high-resolution format. It requires a lot of complicated computer calculations and optimizations during rendering and composing processes, which will be described in following presentation.

## FILMING LIVE CAPTURE IN FULLDOME THE DANCE DOME PROJECT

Matt Wright, Janire Najera, Urban Reaction Research Lab (URRL), Wales, UK

We propose to give a talk which explains the technical and creative processes of the production of The Dance Dome fulldome movies, filmed in 2012/2013 in the UK. We recently have produced 3 fulldome dance movies where we have experimented with green screen studio, timelapse photography and mainly fulldome live capture. In July 2012 we got the Innovation Award at DomeFest USA with 'The Sublime' and later in the year we did a presentation of the project at the Fulldome UK Festival. In 2013 we screened 2 fulldome movies in Argentina as part of BACIFI Film Festival and recently we presented our fulldome trilogy in our bespoke 360° portable projection cinema, at the Edinburgh Fringe Festival in Scotland, UK in August 2013. We are eager to share our experiences in the hope that we can help inspire more experimentation in both dance capture and live capture in general for the dome. During our presentation we could show clips from our fulldome movies and talk about the challenges we found, sharing some behind the scenes footage of the project.

## CIRCULAR CINEMA AT THE ALL-RUSSIA EXHIBITION CENTRE, HISTORY AND THE PRESENT

Candidate of history sciences, A. A. Kotomina, Director of "Circular cinema", "Moscow cinema", Culture department, Moscow

You will learn about the history of creation Circular cinema at All-Russian Exhibition Centre, full panoramic cinema, designed by employees NIKFI in 1959 on the model of Circarama by W. Disney. And you will know about the features of circular movies, about the specificity of the audience perception of these movies in the 20th century and today, about the plans for the reconstruction of the Circular cinema and to create new content for it.

## NIZHNY NOVGOROD PLANETARIUM, AS "NOAH'S ARK"

A. V. Serber, director of Nizhny Novgorod Planetarium

The director of Nizhny Novgorod planetarium Alexander Serber will tell how to form creative team for making planetarium fulldome programs.

Listeners are given unique opportunity to communicate almost to all creative specialists of this planetarium.

# Program of the First International Fulldome Festival in Russia



## «Reflections of the Universe»

devoted to the 50th anniversary of the space flight of Valentina Tereshkova,  
the first woman in space

















Dome (Planetarium)  
Workshop (Interactive classroom or Media-cafe)  
Cafe (Media-cafe)

### October 20, 2013 (*Sunday*)

Arrival and accommodation of the participants of Festival

### October 21, 2013 (*Monday*)

10.00 Registration of participants of the Festival in the foyer of the Center  
Excursion in the Cultural and Educational Center named after  
V. Tereshkova

-  11.30 Festival Opening
-  12.00 "The Galaxy Where We Live" (p.19)
-  13.00 *Lunch*
-  14.00 "The Adventures of a Water Droplet" (p.21)
-  14.35 "The Secrets of «Live» Space" (p.7)
-  15.00 "Darwin and His Fabulous Orchids" (p.7)
-  15.50 "Loup Garou" (p.14)
-  16.00 *Coffee-break*
-  16.30 "Dinosaurs @ Dusk, Origins of flight" (p.6)
-  17.10 "The Doors of Perception" (p.14)
-  17.15 "Syncode 360" (p.23)
-  17.25 "The Native Star" (p.15)
-  17.30 "Cosmic Journey" (p.23)
-  18.30 *Dinner*
- 19.30 Yaroslavl' sightseeing tour



## October 22, 2013 (Tuesday)

- 📖 09.00 Independent Fulldome Content Production and Distribution in Russia –  
*Yaroslav Gubchenko* (p.26)
- 09.00 Excursion in the Museum «Cosmos» vil. Nickul'skoe.  
Meeting is in front of Cultural and Educational Center n.a. V.Tereshkova
- 📖 10.00 Concept Art Development and Production Management of Fulldome  
Show “Constellations” – *Anastasia Shilova, Alexander Potekhin* (p.27)
- 📖 10.30 Production of High-Resolution Fulldome Computer Graphics and  
Scientific Visualization in Fulldome Show “Constellations” – *Vladimir  
Perminov, Yaroslav Gubchenko* (p.27)
- 🌄 11.00 “Telescopes on the Ground and in Space” (p.19)
- 🌄 12.00 “Relentless Night” (p.15)
- 🌄 12.05 “To Space and Back” (p.8)
- 🌄 12.30 “Supervolcanoes” (p.8)
- 🍽️ 13.00 *Lunch*
- 🌄 14.00 “Under the Starry Sky of Yaroslavl” (p.21)
- 🌄 14.20 “The Sun” (p.24)
- 🌄 14.25 “Exploding Universe” (p.15)
- 🌄 14.30 “Alien Action” (p.8)
- 🌄 15.15 “Water – a Miracle of Nature” (p.9)
- 🌄 15.55 “AN.TA.LU” (Eclipse) (p.16)
- 🍽️ 16.00 *Coffee-break*
- 🌄 16.30 “Air Ghosts” (p.9)
- 🌄 17.00 “The Adventures of Victor & Garu” (p.9)
- 🌄 17.30 “8 Scoops of Milky Way” (p.10)
- 🌄 17.50 “Stretto” (p.24)
- 🌄 17.55 “Dome Fest – 2012” (p.16)
- 🌄 18.45 “Coral Rekindling Venus” (p.24)
- 🌄 19.30 “Illuminator” (p.25)
- 🍽️ 19.45 *Dinner*

## October 23, 2013 (Wednesday)

- 📖 09.00 Filming live capture in fulldome – The Dance dome project –  
*Matt Wright, Janire Najera* (p.28)
- 09.00 Excursion in the Museum “Cosmos” vil. Nickul'skoe.  
Meeting is in front of Cultural and Educational Center n.a. V.Tereshkova
- 📖 09.30 Circular film panorama at the All-Russia Exhibition Centre, history  
and the present – *Anna Kotomina* (p.28)
- 📖 10.00 Nizhny Novgorod Planetarium, as “Noah’s Ark” – *Alexander Serber* (p.28)
- 🌄 11.00 “Sputnik” (p.16)  
“Gagarin” (p.17)  
“Oblivion” (p.17)
- 🌄 11.30 “First on Mars” (p.10)
- 🌄 12.15 “0.1.” (p.17)
- 🌄 12.30 “Planets, a Journey Through the Solar System” (p.13)
- 🍽️ 13.00 *Lunch*

- 🌄 14.00 “Life of Trees. The Adventures of Dolores and Mike” (p.6)
- 🌄 14.35 “The Blind Man with Starry Eyes” (p.11)
- 🌄 15.00 “The Circles of Time” (p.17)
- 🌄 15.15 “Constellations” (p.11)
- ☕ 16.00 *Coffee-break*
- 🌄 16.30 “The Longest Night” (p.12)
- 🌄 17.00 “Black Holes – Journey into the Unknown” (p.12)
- 🌄 17.30 “Tilt” (p.10)
- 18.00 *Break on counting of votes*
- ☕ 19.00 *Festival closing. Awarding the prizes. Stand-up party*

## October 23–24, 2013 (Wednesday, Thursday)

*Departure of participants of the Festival*

# Программа первого в России Международного фестиваля научно-популярных полнокупольных программ для планетариев



## «Отражение Вселенной»

посвященного 50-летию полета в космос первой женщины-космонавта,  
Героя Советского Союза Терешковой Валентины Владимировны

















Планетарий  
Мастер-класс (интерактивный класс или медиа-кафе)  
Кафе (медиа-кафе)

20 октября 2013 (*Воскресенье*)

Заезд и размещение участников фестиваля

21 октября 2013 (*Понедельник*)

10.00 Регистрация участников фестиваля в фойе центра.  
Экскурсия по Центру имени В. В. Терешковой.

-  11.30 Открытие фестиваля
-  12.00 «Галактика, в которой мы живем» (с.19)
-  13.00 *Обед*
-  14.00 «Приключения капельки воды» (с.21)
-  14.35 «Тайны “живого” космоса» (с.7)
-  15.00 «Дарвин и его сказочные орхидеи» (с.7)
-  15.50 «Оборотень» (с.14)
-  16.00 *Кофе-брейк*
-  16.30 «Закат эпохи динозавров» (с.6)
-  17.10 «Двери восприятия» (с.14)
-  17.15 «Синкод 360» (с.23)
-  17.25 «Родная звезда» (с.15)
-  17.30 «Космический рейс» (с.23)
-  18.30 *Ужин*
- 19.30 *Экскурсия по вечернему Ярославлю*



## 22 октября 2013 (Вторник)

- 📖 09.00 Опыт независимого коммерческого создания и дистрибуции полнокупольного контента *Я. В. Губченко* (с.26)
- 09.00 Экскурсия в музей «Космос» с. Никульское.  
Сбор группы – перед Центром им. В. В. Терешковой
- 📖 10.00 Разработка художественного решения и ведение рабочего проекта полнокупольной программы «Созвездия».  
*А. С. Шилова, А. А. Потехин* (с.27)
- 📖 10.30 Производственный процесс создания компьютерной графики сверхвысокого разрешения и реализация задач научной визуализации в полнокупольной программе «Созвездия».  
*В. С. Перминов, Я. В. Губченко* (с.27)
- 🌄 11.00 «Телескопы на Земле и в космосе» (с.19)
- 🌄 12.00 «Непрекращающаяся ночь» (с.15)
- 🌄 12.05 «В космос и обратно» (с.8)
- 🌄 12.30 «Супервулканы» (с.8)
- 🍽️ 13.00 *Обед*
- 🌄 14.00 «Под звездным небом Ярославля» (с.21)
- 🌄 14.20 «Солнце» (с.24)
- 🌄 14.25 «Взрыв Вселенной» (с.15)
- 🌄 14.30 «Чужеродное влияние» (с.8)
- 🌄 15.15 «Вода – чудо природы» (с.9)
- 🌄 15.55 «AN.TA.LU» (затмение) (с.16)
- 🍽️ 16.00 *Кофе-брейк*
- 🌄 16.30 «Воздушные призраки» (с.9)
- 🌄 17.00 «Приключения Виктора и Гару» (с.9)
- 🌄 17.30 «8 чудес Млечного Пути» (с.10)
- 🌄 17.50 «Стретто» (с.24)
- 🌄 17.55 «Фестиваль полнокупольных программ – 2012» (с.16)
- 🌄 18.45 «Коралл, разжигающий Венеру» (с.24)
- 🌄 19.30 «Иллюминатор» (с.25)
- 🍽️ 19.45 *Ужин*

## 23 октября 2013 (Среда)

- 📖 09.00 Захват живого видео для полнокупольных проектов –  
*Matt Wright, Janire Najera* (с.28)
- 09.00 Экскурсия в музей «Космос» с. Никульское.  
Сбор группы – перед Центром им. В. В. Терешковой
- 📖 09.30 Круговая кинопанорама на ВВЦ, «История и современность».  
*А. А. Котомина.* (с.28)
- 📖 10.00 Нижегородский планетарий, как «Ноев ковчег» – *А. В. Сербер* (с.28)
- 🌄 11.00 «Спутник» (с.16)  
«Гагарин» (с.17)  
«Забвение» (с.17)
- 🌄 11.30 «Первые на Марсе» (с.10)
- 🌄 12.15 «0.1.» (с.17)

- 🌄 12.30 «Планеты, путешествие по Солнечной системе» (с.13)
- ☕ 13.00 *Обед*
- 🌄 14.00 «Тайны деревьев.  
Удивительные приключения Долорес и Майка» (с.6)
- 🌄 14.35 «Слепой со звездными глазами» (с.11)
- 🌄 15.00 «Круги времени» (с.17)
- 🌄 15.15 «Созвездия» (с.11)
- ☕ 16.00 *Кофе-брейк*
- 🌄 16.30 «Самая длинная ночь» (с.12)
- 🌄 17.00 «Черные дыры – путешествие в неизвестность» (с.12)
- 🌄 17.30 «Наклон оси» (с.10)
- 18.00 *Перерыв. Обработка анкет фестиваля*
- ☕ 19.00 *Закрытие фестиваля. Награждение. Фуршет*

23–24 октября 2013 (*Среда, Четверг*)

Отъезд участников фестиваля

## Information edition Reflections of the Universe

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2014 – the year of culture in Russia.  
The 2nd International conference

## “The planetarium of the XXI century” is dedicated to this event

**April 2nd – 4th, 2014**

**Venue:**

The Cultural and educational center named after V. Tereshkova,  
ul. Tchaikovskogo, 3, Yaroslavl, Russia

**Aim:** To present a planetarium like a powerful, modern, information-educational complex for the development of educational activity and innovation creativity in the sphere of culture and art

**Objectives:** To present the potential of a planetarium in the current context

To demonstrate the peculiarities of the design, construction and technical equipment of planetariums

To acquaint conference attendees with the structure and specificity of work of modern planetariums, on the example of The Cultural and educational center named after V. Tereshkova

**Conference attendees:**

Representatives of the scientific community;

Heads and specialists of city and regional departments of culture, education, tourism, construction;

Representatives of the Russian Planetarium Association and the planetariums of neighbouring countries and beyond

Manufacturers of equipment and software for planetariums;

Content producers for planetariums;

Architects

Private investors

Sponsors

**Organisers:**

Government of the Yaroslavl region

Cultural and educational center named after V. Tereshkova

Russian Planetarium Association

“Svensons ART MEDIA” LLC

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“Svensons ART MEDIA” LLC

See also: [www.21.planetariums.ru](http://www.21.planetariums.ru)

2014 год объявлен в России Годом культуры.

Этому событию посвящена Вторая Международная конференция

## «Планетарий XXI века»

**Время проведения: 2–4 апреля 2014 года**

**Место проведения:**

«Культурно-просветительский центр им. В. В. Терешковой».

г. Ярославль, ул. Чайковского, 3

**Цели конференции:** Показать, что планетарий – это мощный, современный, информационно-познавательный комплекс для развития просветительской деятельности и инновационного творчества в сфере культуры и искусства.

**Задачи конференции:**

Показать потенциал планетария в современных условиях.

Продемонстрировать особенности проектирования, строительства и технического оснащения планетариев.

Познакомить участников конференции со структурой и спецификой работы современных планетариев, на примере КПЦ им. В. В. Терешковой.

**Участники конференции:**

Представители научной общественности;

Руководители и специалисты городских и областных департаментов культуры, образования, туризма, строительства;

Представители Российской ассоциации планетариев и планетариев ближнего и дальнего зарубежья;

Производители оборудования и программного обеспечения для планетариев;

Производители контента для планетариев;

Архитекторы;

Негосударственные инвесторы;

Спонсоры

**Организаторы:**

Правительство Ярославской области

КПЦ им. В. В. Терешковой.

Ассоциация планетариев России

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ООО «Свенсонс АРТ МЕДИА»

Сайт конференции:

[www.21.planetariums.ru](http://www.21.planetariums.ru)



Культурно-просветительский центр имени



В.В. Терешковой