

Exhibitions and Workshops

Workshop

0,75 - A World to Discover

Chemistry of Wine

Wine is an age-old natural product man couldn't do without for thousands of years. But who really knows what it's made of? This Workshop/conference also includes the tasting of the main substances composing wine, such as tartaric acid, tannins, ethanol, glycerine, etc. Playing with these substances, we will discover the reactions they provoke on the palate and finally get to understand how wine can engender emotions.

Bottega del Conte, via delle Grazie 47r

Age: over 14

26, 29, 30 October 1, 2, 5 e 7 November 8:30 pm to 10:00 pm

Workshop

A Fantastic Immersion/ A journey into the blue

This new costumed performance will be held throughout the exhibition's duration, with characters illustrating the history of the appearance and evolution of sea organisms, moving up to the conquest of environments on land. Theatre performance is the best way to provide the youngest guests with a fun and exciting approach to the sea habitat

Acquario, Porto Antico Area, Ponte Ambrogio Spinola

Age: from 6 to 11

26, 27 October and from 30 October to 7 November At 10:00 am, 11:30 am, 1:30 pm, 3:00 pm , 4:30 pm

Not included in Festival's ticket: special price for holders of Festival tickets Booking: 010 2345666



Across Italian Mathematics

Using illustrated panels, this exhibition tells the story of the main events in Italian mathematics. Starting with the Unity of Italy when, in the frame of the great ideals of the national *Risorgimento*, mathematics was growing quickly. Through the more strictly mathematic episodes, this story also narrates the more general History of our country: scientific achievements, the birth of the "Schools", and the institutional dynamics are compared to the functioning of other disciplines and related to everyday life and to the often tragic context of 20th century history.

Palazzo Ducale, Cortile Maggiore

Age: over 14

from 26 October to 3 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Free entrance

Exhibition

Ambiguous, shifty and vital Discovery of Gases

Gaseous matter, because of its elusive nature, has been perceived for ages as a mysterious entity, thus giving rise to diverse interpretations. Only in the second half of the 17th century did man achieve efficient techniques for studying air and other gases. The exhibition traces back the fundamental stages of the research on gaseous matter, from the perception of air in the ancient world until present day, explaining the importance of gases for our comfort and everyday life.

Complesso S. Ignazio.

Age: over 14



from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 6:00 pm

Exhibition

Blow-Up

Images from the Nano-World

To see beyond what our eyes can perceive, down into the world of the simplest nanostructures or bio-molecules, this exhibition is a journey through images into the dimension of nanoscience. It's a course raised from the interaction of a photographer's experience and a scientists' work, and brought up by meditation upon the provocative power of the visual representation of science. The images of the exhibitions guide the visitor into the deepest part of scientific research, along the fields of nanoscience and nanotechnology, which are deemed to be the base of the most extraordinary developments of this century.

Oratorio San Giovanni di Prè

Age: over 14

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 6:00 pm

Exhibition

The Book of the Sky

The Festival in Bookshops

For the whole duration of the Festival, all visitors of the Feltrinelli Bookshop will be enjoying a selection of astronomic images prepared by the Astronomy Section of the Association IMG. This year's theme is sky, its discovery, or, better, its rediscovery.

Libreria la Feltrinelli, via XX Settembre 233r

Age: 3 to 99



from 26 October to 7 November Mon to Fri – 9.30 am to 20:00 pm Sunday - 10:00 am to 1:00 pm and 4:00 pm to 8:00 pm

Free entrance

Workshop

Breakfast with the Photographer

It's much easier nowadays to approach the fascinating world of photography more confidently thanks to digital technologies; high quality photos can be taken with more flexible and easy-to-understand tools. But who said that a good photograph must necessarily be the outcome of sophisticated and expensive equipment? This Workshop illustrates the origins and explains the physical and chemical basis of photography, which are still to be found in modern photographic equipment. For further information please see: www.timepriority.com

Berio - Sala Mostre, Via del Seminario 16

Age: over 11

from 26 October to 7 November Mon to Fri - 10.00 am to 5:00 pm Sat and Holidays - 10:00 am to 5:00 pm

Workshop

Chemistry of Colours

Let's discover chemistry through a series of experiments on natural and artificial pigments. Thanks to laboratory techniques such as paper chromatography, we'll be able to extract chlorophyll and other artificial pigments. We will also make use of some pigments of vegetable origin as indicators of acid and basic substances

la Città dei bambini, Porto Antico Area, Magazzini del Cotone 1st floor

Age: from 11 to 14

26, 27 October and from 30 October to 7 November At 10:00 am, 11:30 am, 1:30 pm, 3:00 pm , 4:30 pm



Not included in Festival's ticket: special price for holders of Festival tickets. Booking: 010 2345666

Exhibition

Ciro, the Child of Velocyraptor

Scipionix Samniticus, which everybody knows by now as Ciro, is the first dinosaur ever discovered in Italy, the only cub of a flesh-eating predator in the world, whose internal organs are still perfectly preserved. He dates back to approximately 113 million years ago, and was discovered in Pietraroja (BN).

Magazzini del Cotone - modulo 7 ground floor, Porto Antico Area

Age: over 11

from 26 October to 7 November 10.00 am to 7:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Climate Change

Energy a Bit at a Time.

Climate change is one of the most discussed current scientific issues: this exhibition examines closely the causes of these changes and the possible answers thereto, which can be given not only by researchers and by Governments, but also by anyone of us.

The core of our exhibition is represented by the intimate nature of energy, its saving and efficiency, the greenhouse effect and the Kyoto protocol for the reduction of greenhouse gases, the effects of changes in climate, renewable forms of energy and the future of energy.

Commenda di Prè, P.zza della Commenda 1

Age: over 6

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Workshop

Copper and Silk

Experimental Research of Electricity

A free pattern workshop: boys and girls organized in workgroups dealing with many objects, aiming to re-write the history of electromagnetism including the most surprising discoveries: from the reason why light bulbs have two wires, to the effects of hammering a TV set. But making attempts won't be enough; after the free experiments, "researchers" will have to venture their hypothesis and establish their electricity laws.

Magazzini dell'Abbondanza, Porto Antico Area, Via del Molo

Age: from 11 to 14

from 26 October to 7 November Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays: 10:00 am to 7:00 pm

Exhbition

Elettra: A Light Beyond Visible

A stream of electrons releases "synchrotron radiation" when it is deflected from its straight trajectory under the influence of a magnetic field.

According to the energy of the electrons, and to the way they are bended, the radiation emitted can be visible light, ultra-violet light, or x-rays. Visitors can observe a plastic model of synchrotron and personally experience a virtual "line of light" used to study proteins, provided with mirrors and cameras.

Magazzini del Cotone - foyer maestrale, Porto Antico Area

Age: over 8

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Esciential. Dinosaurs: Exceptional Storytellers

This year's exhibition is the natural prosecution of last year's "The Secrets of Dinosaurs". The event rotates towards a series of dinosaurs finds representing species of the whole evolutionary of the group, from the Triassic origins to Cretaceous extinction. A series of "satellite" Workshops illustrates the dinosaurs' behaviour: their flying skills, their defence and attack weapons, and the laboratory of the paleontologist. A playing area for children is provided.

Magazzini Cotone - modulo 7, Porto Antico Area

Age: over 3 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Escential. E=mc². A Journey into Special Relativity

Last year was declared "The International Year of Physics" in order to celebrate 1905, the miraculous year when Einstein published his Theory of Restricted Relativity, gave an explanation for the photoelectric effect and provided a theoretical explanation of Brownian Motion by relating it to thermodynamics. This exhibition looks back on the historical period of Einstein's contributions, including their most significant applications.

Organized by the Tehniski Muzej Slovenije of Ljubljana

Magazzini del Cotone - modulo 8

Age: over 11 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm

Sat and Holidays - 10:00 am to 7:00 pm



Escential. Energy and Its Transformations

An itinerary explaining the manifold energy forms and transformations, highlighting the primary role of solar energy, the real origin of nearly all energy sources we currently use. We begin with a walk through a real "garden", in order to show the function of chlorophyllose photosynthesis: fixing solar energy by means of the synthesis of organic substances, the bio-mass.

Thanks to a terrarium, visitors will observe the bio-mass cycle, while a plants containing transparent dome shows how atmosphere and temperature change according to illumination. The visit goes on with a series of machineries performing different kinds of energy transformations, such as bicycles turning kinetic energy produced by the visitor's thrusts on the pedal into thermal energy raising water temperature in a glass: only sportsmen get to the boiling temperature!

Magazzini del Cotone - modulo8, Porto Antico Area

Age: over 11 from 26 October to 6 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Esciential. Energy Layers

This interactive and creative Workshop aims at making even the youngest visitors aware of extremely current themes, such as the use of oil and coal as energy sources. The major concepts of physics and geology will be explained through the construction of a "miniature natural deposit"; visitors will begin to understand the phenomena related to the formation of fossil fuel deposits and their environmental impact.

Magazzini del Cotone – modulo 8, Porto Antico Area

Age: from 8 to 13

from 26 October to 6 November Mon to Fri- 9:00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Esciential. Geometry of Motion: Light and Dynamics in a Multi-Media Itinerary

Nature is in perpetual motion: in the real world, from the infinitely small to the infinitely big, no situations "of rest" can be found. This exhibition illustrates some historical experiments which made the development of the science of motion possible, evolving since ancient times to present days, from Archimedes to Poincaré, through Galileo, Descartes, Huygens and Newton.

Organized by the "Institut Non Linéaire" (CNRS) and the "Institut Robert Hooke" of the University of Nice-Sophia Antipolis.

Porto Antico Area

Age: over 11 from 26 October to 6 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Esciential. My Body

To what extent do we know our own body? We often say that health is the silence of our organs, and that we only care about our body when we get sick. Which kind of image does Western medicine convey of human body? Are we nothing more than an organ collection to be individually [separately] explored? The first area of the exhibition proposes a show of images and figures evocating the medical world on one hand, and the principles of public health on the other.. The following section is dedicated to the main systems governing our physiology, and is completed by the juxtaposed artistic visions of two authors on the theme "Human Fragility".

Organized by "PASS", the Scientific Adventure Park of Framerie (Brussels).

Magazzini del Cotone - modulo 8 ,Porto Antico Area

Age: over 11

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm, Sat and Holidays - 10:00 am to 7:00 pm



Everyday Life Aboard and the Discovery of New Food Products from America

A panoramic, interactive tour to discover how everyday life was lived aboard ships between the 15th and 19th centuries: the galley, the caravel and the brig. The big ships, the long travels, and the great food discoveries that changed the habits, the lifestyles, the routes, the commercial traffic, the health conditions: in other words, everything "good" that has been imported from the New World.

Galata Museo del Mare, Calata De Mari 1 / Via Gramsci

From 6 to 14 years of age

from 26 October to 7 November From Tue to Fri 9.30 am to 11:30 am

Not included in Festival's ticket: special price for holders of Festival tickets Booking: 010 2345666

Exhibition

Experimenta

I'm Moving...Then I Exist!

In occasion of the 2006 Winter Olympic games, Experimenta (Turin) developed the theme of muscular structure, motion coordination, aerobic and anaerobic activity, psyche/sport relationship, training and, finally, the influence of the environment where sport activity takes place. The exhibits presented here are displayed in five "islands", stimulating visitors to play and reflect upon the relations between muscles and the brain.

Loggia dei Mercanti, Piazza Banchi

Age: over 6

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Workshop

Eyes, Lenses, Microscope... How Many Ways to Observe the World!

Thanks to the real activity of a scientific laboratory children will discover, just as in a game, the anatomy and functioning of our very important optical instrument: the human eye. They will first undergo simple tests of naked-eye observation, and then will experience the use of other optical instruments, such as magnifying glasses and a video connected stereomicroscope to discover the magic world of the infinitely small! This activity includes the observation of vegetable, animal and inorganic matter.

la Città dei bambini , Porto Antico Area, Magazzini del Cotone 1st floor

Age: from 6 to 10

26, 27 October and from 30 October to 7 November At 10:00 am, 11:30 am, 1:30 pm, 3:00 pm , 4:30 pm

Not included in Festival's ticket: special price for holders of Festival tickets

Exhibition

Fantasticando. Science dreams by Sergio Fedriani

Watercolours, Sketches, Scene Paintings

Painter, carver, illustrator and set designer, Sergio Fedriani (1949-2006) has given us all, as an artist, many dreamlike images. Between 1999 and 2003 he created illustrations for INFM posters, as well as the sets for the exhibitions "Fragments of Learn-while-playing" and "The Marvels of Science". The exhibition in commemoration of Sergio Fedriani presents original watercolour paintings, some copies of illustrations created for exhibitions, a selection of his printed materials and some theatre sets produced on the basis of his drawings.

Palazzo Rosso, Via Garibaldi 18

Age: over 3

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 6:00 pm



Workshop

Food and Health with Gusto

A coordinated team of teachers, dieticians and food technologists will lead children into a large and well equipped space where they will play with food education. The first section is a real didactic workshop, where children will learn everyday food habits without unnecessary prohibitions that they should follow, while becoming more familiar with the connections between alimentation and art, literature and history. The second section, dedicated to physical activity, which is so important for our health, displays motion games, which make it easier to understand food products and the principles of a correct diet.

Age: over 11 from 26 October to 7 November Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Magazzini dell'Abbondanza, Porto Antico Area, Via del Molo

Workshop

For a Handful of Photons

A Visit to the Nanoscopy and Microscopy Laboratories of the MicroScoBIO, LAMBS-IFOM Research Centre

Multi-photonic microscopy, the latest frontier of optical microscopy, has opened new observation windows in the biologic microcosm in four dimensions (three-dimensional space plus time), thus allowing researchers to scan even the most minute recesses of life: here, the scale fluctuates from one thousandth to one millionth of a millimetre. The LAMBS-MicroScoBIO researchers will lead visitors along a fascinating journey in this "Nano-World".

Centro di ricerca MicroScoBIO, Via Dodecaneso 33

Age: from 14 to 19

30, 31 October 8.30 am to 6:40 pm



Forms of the Encounter

Works by Carla Sanguineti

This exhibition is composed of mobile figures, made of reflecting materials that communicate with the worlds of light and colour. The event is an introduction to Carla Sanguineti's iconographic research, focusing on metal and glass surfaces, and on their relations with objects and persons. It's a "reality vs. vision" game, originating from matter itself, perceived as a total opening to the world and to "Otherness".

Fondazione Garrone, Via S. Luca 2

Age: over 11

Free entrance, only on reservation calling the number 010 8681534

Exhibition

From Hertzian Waves to Cosmic Rays

The students of the High School "ITIS Calvino" present the different behaviour of electromagnetic radiations according to different wavelengths, their applications and their interactions with matter and biological organisms. Visitors will be able to see infrared rays through their cell phones' camera; observe the fluorescence phenomena produced by ultraviolet radiations and understand the peculiar features of laser light.

I.T.I.S. Italo Calvino via Borzoli 21 - Genova Sestri Ponente

Age: over 6 2, 3, 4 November

At 9:00 am an at 11:00 pm

Free entrance

Booking: 388-7456757, from Mon to Fri, 11:30 am to 1:30 pm

Exhibition

From Krypton to Genoa, Superpowers of Scientific Research

Telecom Progetto Italia proposes a fun and interesting interactive experience: discovering the latest frontiers of research through the legend of Superman, the super-hero par excellence, re-proposed this time from an absolutely new viewpoint, unprecedented in Italy. Thanks to the collaboration of Warner Brothers Italia, the



public will enjoy a new modality of science communication, focused on a universally beloved character, dear to every generation

Porto Antico, Piazza delle Feste

Age: over 6 from 26 October to 7 November Mon to Fri 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

From the Pyramid of Mysteries to the Mysteries of Cells

Moving masses of weight and size far bigger than the actual capabilities of a human being and getting to observe what is invisible to our eye: just a couple of the many examples in which a technologic solution made it possible to overcome barriers that seemed to be insuperable. In this Workshop, visitors are given the chance to have a close up meeting with two major technologic solutions in mankind's History. A 1:10 scale stone model, complete in every detail, will bring us inside Cheops's pyramid. Walking up an imposing gangway, the "Great Gallery", we will discover the pyramid's secrets, explained thanks to classical physics problems and the decomposition of forces according to the parallelogram rule. Thanks to microscopes, on the other hand, visitors will actively prepare animal and vegetable cell compounds, in order to observe their peculiarities

ITIS Gastaldi-Giorgi: via Timavo 63

Age: over 11

26 October and 2 November at 9:00 am, 1:00pm, 2:30 pm and 5:00 pm

27 October and 3 November at 9:00 am and 1:00pm

Booking by: ITIS Gastaldi-Giorgi http://www.gastaldi-giorgi.ge.it 010-265305/45 posta@gastaldi-giorgi.ge.i

Exhibition

From Sea to the Table

Along this exhibition's itinerary, numerous basins will show visitors the ichthyic species having a commercial value, explaining to them the world of fishing, the



consequences of man's activities on the natural equilibrium, endangered species, protected sea areas, and, finally, the possibility of responsible consumption.

Acquario, Porto Antico Area- Ponte Ambrogio Spinola

Age: from 11 to 18

26, 27 October and from 30 October to 7 November At 10:00 am, 11:30 am, 1:30 pm, 3:00 pm , 4:30 pm

Not included in Festival's ticket: special price for holders of Festival tickets

Booking: 010 2345666

Exhibition

The Sun Garden

In the garden facing the Astronomic Observatory of Genoa Righi, the *Sun Garden* reproduces the ancient instruments used to measure the height and the position of the Sun and heavenly bodies, from which it is possible to derive useful information regarding navigational bearings as well as to measure time.

Osservatorio Astronomico del Righi, Mura alle Chiappe 44

Age: over 6

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

Genes in a Lab: Discovering DNA

This Workshop demonstrates how to get in touch with life sciences and biotechnologies, while learning and having fun at the same time. Extracting DNA from fruits, vegetables and saliva; learning how to find OGMs hidden in our food; discovering, thanks to genetic clues, whether a suspect is guilty; observing cells and micro-organisms at the microscopic level, preparing coloured slides in order to see if there is life inside a drop of pond water. Visitors will personally partake in all of these operations using state-of-the-art equipment.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo



Age: from 8 to 20

from 26 October to 7 November Mon to Fri 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

Hard Life of Sailor Ducks

A playful and interactive deeper focus on sailors' everyday lives and eating habits. The thematic itinerary is mainly held aboard a galley and a brig, and is completed by the kneading of the "galletta", the sailor's dough

Galata Museo del Mare. Calata De Mari 1 / Via Gramsci

Age: from 3 to 6

from 26 October to 7 November From Tue to Fri 9.30 am to 11:30 am

Not included in Festival's ticket: special price for holders of Festival tickets. Booking: 010 2345666

Workshop

Heat or Temperature?

An Itinerary Across Thermal Phenomena?

Thermal phenomena are the leading theme of the exhibition's itinerary, which includes Melloni's optical bench for the discovery of the electromagnetic nature of radiant heat; the experiment of burning glasses on heat propagation; as well as more ancient machines and classical thermology and calorimetry experiences.

Ist. Tecnico Vittorio Emanuele II Palazzo Rostan - largo Zecca 4

Age: from 3 to 6

30 and 31 October and 2, 3, 4 November

8:30 am to 12:30pm

Booking: www.vittorioemanueleruffini.it



Hidden Cathedrals

Nowadays, the study of cosmic radiation represents the new frontier of knowledge in the physics of particles and of astro-particles, that is in the study of all particles produced by the Sun, by stars and many other heavenly bodies. Among them are neutrinos, originating from the nuclear reactions within heavenly bodies. These particles have always been shrouded in mystery; their evanescent nature enables them to cross our whole planet from one extremity to the other. The study of neutrinos has garnered enormous scientific interest, as it may be the key to clarifying some phenomena of crucial importance, such as the asymmetry between matter and anti-matter and, at the end of the day, it may result in a single, unified theory of fundamental interactions.

Magazzini del Cotone - modulo 7, I piano, Porto Antico Area

Age: over 12 from 26 October to 6 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

How are we Changing Climate?

The debate on climate changes and the emission of greenhouse-effect gases is usually focused on its industrial impact. Nevertheless, 24% of the EU emissions in 2003 were due to energy production, 10% to personal consumption of fossil fuels, 10% to agriculture and 21% to transportation. With this in mind, a special game was developed with the purpose of demonstrating how our lifestyle contributes to the emission of three different greenhouse gases limited by the Kyoto Protocol. The simulation highlights how our habits are related to global issues, and to what extent people can limit their own contribution, through alternative lifestyles and smarter choices.

Organized by the General Management Office of the Joint Research Centre of the European Commission.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo

Age: over 14 from 26 October to 7 November Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Infinitely Close

A Journey Into the Human Body

A journey into the human body, just as the "nano-tourists" in Fleischer's film "Fantastic Voyage", or the "nano-robots" which are now revolutionizing medical theories: the inner vision of the body —which our culture once considered a sacrilegious act - explodes in a great number of colour pictures with an incomparable and evocating beauty.

A new perception is unveiled along this series of photographs in which the realistic anatomical reference is lost, relief and contrast emerge in between the different colours, so that one can literally plunge into a vein, fly all over a field of cell cilia, lay down on a carpet of adipose tissue, or swim in a tear.

Accademia Ligustica, Sala Mostre - 1st floor, Largo Pertini 4 (piazza De Ferrari)

Age: over 10 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Invention and Harmony Trials

Art, Research, Science: an Exhibition in the Paganini House

Walking through an imaginary orchestra; recognizing its timbres while moving on an empty stage; entering the microscopic composition of an instrument, modifying it with our gestures; climbing a ladder which begins vibrating at our passage; playing magic tables and chairs that turn out to be astonishing producers of sound enchantments; watching in an electronic mirror as our own body is transformed by the intensity of its own movement; challenging each other on a moving platform, thus using our equilibrium to create volumes and acoustic spaces. This special Exhibition leads visitors along a journey of knowledge that aims to reveal the extraordinary possibilities that new digital technologies open to artistic and musical imagination.

Casa Paganini, piazza Santa Maria in Passione, InfoMusLab

Age: over 3

from 26 October to 7 November

from 10.00 am to 1:00 pm and from 2:00 pm to 5:00 pm



Booking is obligatory for guided visits, calling the number 010-2758252 from Monday to Friday , from 10:00 am to 12:00 am

Exhibition

Landscape Journey

Landscape should be seen as an overlapping of natural and human components, which, depending on its location, has taken more or less time to be shaped. The exhibition's goal is to explain how the basic starting state of a landscape is represented by Geo-Diversity, i.e. the different history of rocks emerging in any given place. Then climate intervenes: triggering exogenous processes, it produces all settings and conditions suitable for most different environments to arise, making biodiversity (i.e. different forms of vegetable and animal life) possible, including any products of Man himself.

Dipartimento POLIS, Stradone S. Agostino 37

Age: over 6

from 26 October to 7 November Mon to Fri – 9.00 am to 12:00 am and 2:30 pm to 5:00 pm Closed on Holidays

Workshop

Lights and Colour Games

How do colours form, and how do they behave? To answer such questions it is possible to make use of two complementary points of view: the observation of chromatic changes caused by particular reactions, using chemical manipulation to spark fascinating and curious phenomena. Or, on the other hand, making physics of light experiments with a simple ray of light and a series of mirrors, lenses, prisms and polarizing thin plates. Physics then, from geometric optics to physic optics, offers laws and interpretations that describe the colours' behaviour, helping us to understand all these electromagnetic phenomena.

ITIS Gastaldi-Giorgi, Via Dino Col 32

Age: over 11



2 November from 2:30 pm to 5:30 pm; 3 November from 9:00 am to 1:00 pm; 4 November from 9:00 am to 1:00 pm; 6 November 9:00 am to 1:00 pm and from 2:30 pm to 5:30 pm; 7 November from 9:00 am to 1:00 pm.

Booking: http://www.gastaldi-giorgi.ge.it, 010-265305/45; posta@gastaldi-giorgi.ge.it, 010-265305/45; posta@gasta

Workshop

LiraLAB

Home-made robots are presented here, as the latest Babybot, equipped with a sensory system composed of two cameras simulating the non-uniform distribution of human retinal receptors and two microphones, each installed within an artificial auricle. A group of three gyroscopes imitates the functioning of the human vestibular system, while a force sensor is installed on the wrist and tactile sensors on the fingers and the palm.

LIRALab. Viale Francesco Causa 13

Age: from 11 to 18

26, 31 October and 2, 7 November

10.00 am; 11:00 am

Workshop

Look at That Crust!

A fascinating trip into the heart of the Earth. This planetarium, usually used to observe extremely far objects, will now help us to plunge under the Earth's crust and discover what the structure of our planet's surface is and the layers below it. Inside Starlab, a moving planetarium, younger visitors will discover, for example, the underlying mechanisms of the plates motion, what earthquakes actually are, and how our planet's structure changes the closer we get to its centre. It won't only be a visual experience; at the end of the journey visitors will use all of their senses in hands-on games and scientific tests to have a thorough personal experience of what they have just observed inside the planetarium dome.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo

Age: from 6 to 10

from 26 October to 6 November at 10:00 am, 12:00 am, 2:00 pm, 4:00 pm, at 6:00 pm Sat and Holidays



The Marvels of Science 2006

Discovering Materials

The "Hands On" formula, that is the real interaction with different objects and situations, has always been the guiding force of the Festival's exhibitions. This year's Marvels of Science come back with more than twenty exhibits that allow visitors to actually touch many of the materials that have been the milestones and crucial steps of human evolution: from prehistoric times to the advent of miniaturized computers. We'll consider materials we use daily from a new and unexpected point of view, also discovering the amazing characteristics of the most innovative ones that are nowadays used in many different sports, as well as in state-of-the-art medical operations unimaginable even ten years ago. Visitors will be able to boil water at room temperature, watch plasma's formation, discover how the most modern microscopes work, or, finally, get to know the OLED, materials used in the light bulbs of the future.

Palazzo Ducale, Loggia degli Abati, P.zza Matteotti 9

Age: over 6

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

Maths Discovered

Imagining, Visualizing, Animating, Understanding.

Mathematics is, by definition, abstract. How can we make it more tangible or, to be more precise, "visible"? The students of the Faculty of Architecture of Rome ("Roma Tre") have tried to visualize abstract concepts, such as number sets, limits and functions, in other words, to create the figures they would have liked to find depicted visually in a textbook. The result is this curious exhibition which, spanning from computerized graphics to sketches, conveys a more interesting and friendly picture of mathematics with numerous jaunts into the fields of art and the study of nature.

Palazzo Ducale, Sottoporticato, P.zza Matteotti 9, within MathFitness



Age: over 14

from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

Microscopic Roommates

There is a parallel world running next to ours, with which we have constant contact, especially when we are at home: it's the world of micro-organisms. This is a journey into the discovery of this invisible and astonishing world. An original Workshop bringing you inside a "home", leading you to explore room by room, detecting with a microscope the typical micro-organisms of every single environment, such as moulds caused by humidity in the bathroom, on the shower curtain, or in the detergent drawer of the washing machine. But also showing the toxin-producing ones, which spoil food products in the kitchen, or carpets, books and wallpaper in our sitting room.

Oratorio San Giovanni di Pré, Piazza della Commenda

Age: from 6 to 10

from 26 October to 6 November at 10:00 am, 12:00 am, 2:00 pm, 4:00 pm at 6:00 pm Sat and Holidays

Exhibiton

Microvisions – The Eyes of the Scanning Electron Microscope

Have you ever looked a bee in the eye? Now you can! The scanning electron microscope is an extremely powerful instrument; it makes it possible to get images magnified from 15 to 100,000 times. Visitors will discover its function and perform scans of samples, such as an insect or a microchip.

Organized by the Vienna Museum of Science.

Magazzini del Cotone - modulo8 , Porto Antico Area

Age: over 11 from 26 Octob

from 26 October to 6 November

at 10:00 am, 12:00 am, 2:00 pm, 4:00 pm

at 6:00 pm Sat and Holidays



Mirrors

Science and Consciousness at the Mirror

The mirror represents, both metaphorically and physically, a milestone in mankind's history: an almost magical surface through which we develop the knowledge of the world and ourselves. Through the mirror, actually, man has gotten to know himself and, thanks to advancements in technology, then learnt more about the cosmos, light, their own inwardness. Without mirrors, we would know nothing about heavenly bodies, and very little about our inner and outer nature. This exhibition aims therefore at exploring the dynamics of perception of oneself and of others through the reflected image.

Palazzo della Borsa, Via XX Settembre 44

Age: over 6 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

Molecular Biologists for One Day

This Workshop gives the opportunity to observe biological tissues at the microscope, to prepare histological compounds, to build a model of DNA. Visitors can also take part in immunocytochemistry experiments to colour the cells , as well as electrophoresis tests to visualize the genomic DNA. A fascinating insight into the job of a scientist.

Exhibition

Nanodialogue

What are nano-sciences and nanotechnologies, and what kind of impact do they have on our daily life? Which applications already exist, and which will be available in the future?

This extreme field of research discloses disquieting scenarios and involves many different aspects, from control over human beings to pollution and medicine, which are relevant to everyone's future.



The exhibition shows objects which have been made with nano-technological materials, such as organic solar cells, nanometric chips, liquid crystal displays with nano-particles, stain proof materials, antioxidant plates, fingerprint proof materials and biocompatible medical appliances: the exhibition also deals with the ethical aspects involved in the development of these technologies.

Loggia dei Mercanti, Piazza Banchi

Age: over 12 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Exhibition

A Natural History of the Unmentionable: Poo

Why a laboratory on poo? Well, because this awkward, everyday subject allows us to understand a lot about life on our planet. A didactic and fun itinerary, explaining the formation of excrement inside the body; revealing how animals in nature communicate with each other by means of their faeces; considering the transformation of poo into manure substances, i.e. soil, food for plants. This Workshop is inspired by the children's book by Nicola Davies after the great success of the exhibition in London some years ago

la Città dei bambini, Porto Antico Area, Magazzini del Cotone 1st floor

Age: from 6 to 13

from 26 October to 7 November every day - 10.00 am to 7:00 pm

Workshop

Nature - Science - Art - Game

The exhibition of Victor Simonetti's works, with its manifold play, scientific and aesthetic aspects, will be stimulating for both experts and visitors of any age. The collection of two-dimensional and three-dimensional works of art is completed by a video projection area, as well as by a Workshop addressed to students and run by the artist himself.

Sala polivalente "Città di Recco" via I. D'Aste, Recco

Age: over 6

from 26 October to 7 November



10.00 am to 12:30 am and 4:30 pm to 7:00

Free entrance. Booking is needed for guided visits. Booking: 0185 75163

Workshop

Navigation Routes Aboard the Marvellous Transoceanic Liners

The new and most important navigation routes of the magnificent transoceanic liners at the discovery of the New World and life aboard these imposing floating cities.

Galata Museo del Mare, Calata De Mari 1 / Via Gramsci

Age: from 14 to 18

from 26 October to 7 November from Tue to Fri - 9.30 am to 11:30 am

Not included in Festival's ticket: special price for holders of Festival tickets

Booking: 010 2345666

Exhibition

The Numbers' Factory

How many "numbers" exist? What are they made of? When were they invented, by whom and why? And if there were not all these numbers, would it be possible for us to do all we do every day? During the exhibition it will be possible to get in touch with the way in which mathematics can "make" all numbers and discover all of their aspects, from the most amazing to the most profound ones. You will be taken from whole numbers to real numbers, from fractions to imaginary numbers. Infinite hotels, numbers to count and measure, to build up and reconstruct, to weigh and slice... up to a special "mathematical Stargate"!

Palazzo Reale - Teatro del Falcone, Via Balbi 10

Age: over 12 from 26 October to 7 November

Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Organic Macroscopic

Instruments and Surveys

The Rebecca Container Gallery will expose the most updated research in the field of organic macroscopia, carried out along numerous years of studies by a team of Sicilian luminaries assisted by Dr. Giovanni Robustelli. The purpose of this research was the understanding, by means of scientific instruments and surveys, of the functioning of the organic processes and mechanisms that allow man to metabolize the surrounding space, and – consequently – to exert his personal will.

Rebecca Container Gallery, Piazza Grillo Cattaneo 2r

Age: over 11

Opening Saturday 21 October, from 6:00 pm to 10:00 pm

Tue to Sat -4.00 pm to 7:00 pm. By booking, calling the number 347 8886802,

the exhibit can be visited in other time

Free entrance

Workshop

Plastic: 21st-Century Material

Everywhere, plastic is the genial protagonist of our everyday life. This extremely modern material is illustrated in this Workshop through simple and instructive experiments. A path divided into several stages, where visitors will have a handson experience demonstrating the useful and irreplaceable role played by plastic materials in common everyday activities in a fun and interesting way.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo

Age: over 6

from 26 October to 7 November from Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Workshop

Playing with Ideas and Materials

This centre includes four itineraries to discover nature and the world surrounding us through dozens of experiments that were conceived for our youngest visitors, although they are all interesting at any age. A world where nothing must be studied and everything can be played with. This is the Centre for Playing with Ideas and Materials. To discover how it is, you have to see it for yourself!

Centro Idee e Materie in Gioco, Via Vecchi 3

Age: from 3 to 11

from 26 October to 7 November

10.00 am to 7:00 pm and 2:00 pm to 6:30 pm

Sat and Holidays: Closed

For booking call the number 010 3993366 or 010 3742663 from 10:30 am to 12:00 am from Mon to Fri, except 1 November

Workshop

Pure Chlorine

A Natural Talent

Chlorine is an extraordinarily versatile and useful element. Though invisible, it contributes to the improvement of our quality of life, from health to free time [leisure], from safety to nutrition. The workshop "Pure Chlorine" is a short journey in the discovery of chlorine's talents; through amusing practical experiments, visitors will have their first contact with chlorine chemistry, thus getting to understand and verify the significance of its useful applications.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo

From 6 years of age

from 26 October to 7 November from Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Ray of Light

In this vast space we'll develop a personal knowledge of the "grammar" of light, getting to understand the many phenomena developed by its meeting with different materials. Thanks to extremely state-of-the-art instruments, visitors will be given the chance to observe light as it reflects through diverse mediums, and to experimentally understand the way it is captured by our senses.

Commenda di Prè P.zza della Commenda 1

Age: over 3

Mon to Fri – 9.00 am to 6:00 pm

Sat and Holidays - 10:00 am to 7:00 pm

27 October the exhibit Is open from 12:00 am to 3:00 pm

Exhibition

Red Sky at Night...

From the Observation of Clouds to Weather Forecast

A spectacular photo gallery on meteorology receives visitors in the Meteo-Hydrological Functional Centre for the Environmental Services of the Region of Liguria. Inside the operations room, they will learn how it's possible to "guess" what weather will be like on the next day. They will be allowed to have a "hands-on" approach to the instruments for the measuring of weather-linked variables, from the older mechanic stations using nails and paper, to the modern automatic units with electronic sensors.

Centro Funzionale di Protezione Civile, Viale Brigate Partigiane 2

Age: over 6

30 and 31 October, 2, 3, 6, 7 November

at 2:00 and 3:00 pm

Booking is mandatory at: 010 6437500, from Mon to Fri, from 9:00 am to 12:00 am.

Workshop

Reverse Trio: a Setting for Composition

The automatic, that is "accidental", composition in music production dates back to 1757, when a pupil of J. S. Bach suggested the use of dice for the perpetual



composer of polonaise and minuets. The "Musikalisches Würfelspiel" (musical dice game) is ascribed to Mozart in 1793. The idea is to compose a 16-beat waltz leaving it up to the fortuitous dice to cast the sequence and the choice among 176 beats, all written by the composer. Reverse Trio is a physical setting that allows visitors to "compose" in real time and interactively a short 16-beat musical track making use of Mozart's recipe. The visitors' position and the course they follow will decide the direct outcome of the work, a potentially unlimited number of combinations of short sound extracts from Mozart's quintets for strings. By means of motion, detected by the EyesWeb system, visitors will also be able to recognize the sound sources: violins, violas and cellos will be transformed into real timbre illusions.

Casa Paganini, piazza Santa Maria in Passione at InfoMusLab

Age: over 11

from 26 October to 7 November every day - 10.00 am to 1:00 pm and 2:00 pm to 5:00 pm

Booking is obligatory. Booking: 010-2758252 from 10:00 am to 12:00 am

Exhibition

Rythm of Shapes

A Journey in Genoa, Discovering Symmetry and its Rupture.

Symmetry is the artist of beautiful images and varied constructions, just as a thread running through many expressions of human knowledge and feeling, it is an important part of any level of mathematics, in science in general, in art as well as in everyday life. This exhibit, using photographs depicting architectural particularities of the City of Genoa, aims to train the eye to discover symmetry.

Palazzo Ducale, Sottoporticato, P.zza Matteotti 9, at MathFitness

Age: over 6 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm



Workshop

Samurai's Physics

Discovering Bushido's Secrets

The old days of legendary warriors defeating entire armies with almost fantastic techniques belong to the past; today, science provides the instruments to study and understand what was believed to be the work of obscure powers many centuries ago. A great concentration and ability in exploiting one's own body, "in the lapse of a breath", the instant of inertia, the adversary's strength and speed: this is the secret of the Samurai. This Workshop gives the chance to observe and experience the practice of Oriental Martial Arts, detecting in them laws and principles of physics and biomechanics.

Magazzini dell'Abbondanza, Porto Antico Area- Via del Molo

Age: over 11 from 26 October to 7 November from Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshops

Science in Cooking

Visitors will be received in an open-space kitchen by both a chef and a scientist: this original combination of knowledge and skills will reveal to the public which chemical and physical processes are hidden in an operation as simple as the preparation of a dish. For instance: why do yeasts leaven? And how is it possible to get bread starting from a powdery substance like flour? How can such different products, such as butter, cream and yogurt, be derived from milk? And why is it better to fry using olive oil instead of seed oil?

Coop di Sestri Ponente, Via Merano 20

Age: over 11

from 26 October to 7 November

11.00 am

Except: 2 November (4:00 pm) and 6 November (3:00 pm)

Booking is mandatory

Exhibition



Science for Food

"Science for Food" investigates today and tomorrow's technologies for the quality and safety of food products: the exhibits, presented by researchers, professional scientists and scientific "entertainers", aim at explaining state-of-the—art technologies applied to the quality, safety, type and packaging controls on food.

Commenda di Prè, P.zza della Commenda 1

Age: over 14 from 26 October to 7 November Mon to Fri – 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 5:00 pm

Exhibition

Solar Cities, Past and Future

Scientific Discoveries and Technologic Development

For thousands of years, all over the world, local geography and climate have affected the human environment: up until less than two hundred years ago, life in any urban centre depended on renewable solar energy that was found on site. This exhibition runs through the history of the evolution of human habitats from the ancient times to today. It shows how the use of energy, the urban and architectural evolution of cities and their buildings, energy and food infrastructures, and finally the major scientific discoveries and technologic innovations have represented the milestones of history.

Palazzo del Principe, Piazza del Principe 4

Age: over 11 from 26 October to 7 November 10.00 am to 5:00 pm

Exhibition

Soap Bubbles: not Only for Playing

Let's observe the behaviour of the thin surface of soap bubbles by using "looms" of various shapes, including plane and solid figures. We will study the surface of bubbles coming in contact with each other and experimentally measure the surface tension, better analyzing the concepts of "lesser possible surface area" and "lesser distance between points on a plane".



la Città dei bambini Porto Antico Area, Magazzini del Cotone 1st floor

Age: from 11 to 14

26, 27 October and from 30 October to 7 November At 10:00 am, 11:30 am, 1:30 pm, 3:00 pm , 4:30 pm

Not included in Festival's ticket: special price for holders of Festival tickets

Booking: 010 2345666

Workshop

Testlab

Testlab is a sort of "federation" of simulators that, using virtual reality, create the inner traffic of a container area. The character of this "federation" enables visitors to cooperate with each other in the steering of the simulators. Every user's performance will be evaluated in terms of operational safety and efficiency, in order to generate a final list showing the most skilled participants.

Mag.Cotone- foyer maestrale, Porto Antico Area

Age: over 11

from 26 October to 7 November from Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Wonders 2006

Wonders 2006 is a joint initiative of 21 European Institutions working in the field of scientific communication, coordinated by EUSCEA, the European Association of Scientific Events. Wonders' programme includes a "Carousel of Science", aiming to bring the large public in touch with science; several "Scientific Cafes", that hope to open dialogue on the scientific subjects that are most interesting for citizens today. The initiative "Click on Climate", has the purpose of making everybody, especially younger people, more aware of environment related and climate related themes. The "Carousel of Science" is a scientific events exchange involving 17 European Countries and Israel. The Wonders Project was launched in Vienna in March 2006, and will come to an end in December in Vaanta, Finland.

WONDERS 2006 is a co-financed project of the European Commission.



Workshop

Wonders. Deeper than Light

A small theatre and an octagonal model will help visitors experience the deepest parts of the sea and have contact with its incredible forms of life through an original mix of scientific discoveries, sea technology, odd forms of ocean life, and works of art on the theme of the abyss. The work of photographer David Shale, member of several oceanographic expeditions and collaborator of the BBC series "Blue Planet", will be shown next to the biologic samples of the MAR-ECO collection: shellfish, coral, sponges, cephalopods and fish, some of which extremely rare or recently discovered. There will also be a series of dramatic and stunning works by Ornulf Opdahl, the greatest Norwegian contemporary landscape painter and a member of a MAR-ECO research expedition. In the artistic section of the exhibit, visitors will also admire tables by Thorly Rasmussen, scientific illustrator at the Marine Research Institute, which are currently a legacy of the Bergen Museum.

Magazzini del Cotone - sala Austro -modulo 9 primo piano, Porto Antico Area

Age: over 11 from 26 October to 7 November from Mon to Fri - 9.00 am to 6:00 pm Sat and Holidays - 10:00 am to 7:00 pm

Workshop

Wonders. Street Science

The scientists of the Norwegian University of Science and Technology, with much experience in the field of scientific communication, will bring through the streets of Genoa a series of initiatives and experiments addressed to children and teenagers of all ages. Within such an extravagant frame, visitors can wear scientist's clothes, and use real laboratory instruments to perform interesting experiments.

Palazzo Ducale cortile maggiore, P.zza Matteotti 9

from 27 to 30 October, from 3:00 pm to 7pm

free entrance



Workshop

Workshops for Scientific Knowledge

Evolution at Work

When, during one of the many diverse occasions of everyday life, we hear the saying "it's in our DNA", do we really mean the same thing that scientists mean when they say it? Exactly what is DNA, anyway? Genetics has recently occupied the media, exciting people with its therapeutic promises, or frightening them with its engineering applications. But what does it have to do with Darwin's theories of evolution, natural selection, adaptation, and the origin of species? And why was there an attempt to prohibit minors under the age of 14 from learning this theory, which seems to be part of the History of Science? Starting from this question, the Workshops will face a challenge: is it possible to understand evolution also "by doing", i.e. "putting thought into action", through games and direct interaction? And if so, is a didactic workshop on evolution possible in schools? Three different workshops are foreseen, addressed to students and teachers from any level of schooling.

Palazzo Ducale, Piazza Matteotti 9

Age: over 6 6 November 10.00 am to 1:00 pm

Booking is mandatory (Max 20 person for workshop). Booking: 06-86268415



Calendar

In this section you will find a selection of the lectures suitable for an international audience.

October 26th

6:00 pm
Aula Polivalente San Salvatore
Helga Nowotny
From curiosity to discovery to innovation: society meets science and vice versa

October 27th

10:30 am Aula Polivalente San Salvatore Rita Colwell Global warming and human health

3:00 pm

Alliance Française Galliera de Gênes

Lena Qiying Ma

Phytoremediation of arsenic contaminated soils and water using Chinese brake fern

6:00 pm

Aula Polivalente San Salvatore

Nicola Cabibbo, Gregory Chaitin, Jesus Mosterin; moderated by Evandro Agazzi

Able to see, able to think. Intuition, experience and theory in scientific discovery

9:00 pm

Aula Polivalente San Salvatore

Vincenzo Di Marzo, Robert Mechoulam

Marijuana from the inside. The discovery of endocannabinoids and their therapeutical purposes



October 28th

11:00 am Aula Polivalente San Salvatore Umberto Bottazzini, Gregory J. Chaitin Surprises in the foundations of mathematics

October 29th

3:00 pm Aula Polivalente San Salvatore Giacomo Giacobini, Giorgio Manzi, Cristopher Stringer; modera Claudio Tuniz

Happy Birthday, Neanderthal!

5:00 pm Aula Polivalente San Salvatore Andrew Crumey, Patrizia Bisi **The bridge between science and literature**

October 30th

2:30 pm Aula Polivalente San Salvatore Toshio Fukuda, Carlo Montemagno, Vincenzo Tagliasco. Moderated by Carmelina Ruggiero; introduced by Giorgio Rivieccio The artificial cell

3:30 pm
Palazzo Ducale - Sala del Maggior Consiglio
David Bodanis
Our electric universe

October 31th

3:00 pm
Palazzo Ducale - Sala del Maggior Consiglio
Seth Lloyd, Gloria Origgi, Robert Trivers; coordinated by John Brockman
The Expanding third culture. Edge panel

6:00 pm



Palazzo Ducale - Sala del Maggior Consiglio Robert Trivers Genetic conflicts within our own bodies (and those of other creatures)

November 1th

3:00 pm
Palazzo Ducale - Sala del Minor Consiglio
Jacopo Pasotti, Richard Stone
The road of science. Culture, politics and science halfway between
Asia and the Western World

6:00 pm Palazzo Ducale - Sala del Minor Consiglio Seth Lloyd **Hacking the universe**

November 2th

6:00 pm
Palazzo Ducale - Sala del Maggior Consiglio
Daniel Kahneman
Toward a Science of Well-Being

November 3th

3:00 pm Palazzo Ducale - Sala del Maggior Consiglio Ken Bray

How to Score: Science and the Beautiful Game

4:00 pm Biblioteca Berio - Sala dei Chierici Anne Treisman Visual attention, object perception

5:00 pm
Palazzo Ducale - Sala del Minor Consiglio
Siegmar Roth
Nanotechnologies: a chance for innovation



9:30 pm

Palazzo Ducale - Sala del Maggior Consiglio

Daniel Kahneman and Massimo Piattelli Palmarini; moderated by Matteo Motterlini

Real decisions: neither rational nor capricious

November 4th

2:00 pm

Palazzo Ducale - Sala del Maggior Consiglio

Dan Brooks, Niles Eldredge, Ryan Gregory, Bruce Lieberman, William Miller III, Telmo Pievani, Ilya Temkin

From genes to ecosystems. A Hierarchy theory of evolution

6:00 pm

Palazzo Ducale - Sala del Maggior Consiglio

Edoardo Boncinelli, Terrence Deacon

Self-organizing processes in evolution; from the origins of life to language

9:00 pm

Palazzo Ducale - Sala del Maggior Consiglio

Lisa Randall

Warped Passages

November 5th

11:00 am

Palazzo Ducale - Sala del Maggior Consiglio

Artur Ekert

Ciphers, Quanta and Computers

3:00 pm

Palazzo Ducale - Sala del Maggior Consiglio

Michio Kaku

Parallel Worlds

3:00 pm

La Passeggiata Librocaffe'

Ryan Gregory

Frontiers of scientific research: DNA barcodes and biodiversity



3:00 pm
Palazzo Ducale - Sala del Minor Consiglio
Susan Blackmore, Elsa Addessi
The meme of Dawkins

3:00 pm

Magazzini del Cotone - sala maestrale - modulo 10 primo piano Giovanna Bonaccorsi, Gianluca Ranzini, Simona Righini, John Rummel. Moderated by Jader Monari

Second Bioastronomy day

5:30 pm Palazzo Ducale - Sala del Minor Consiglio Adam Bly **Our Renaissance**

6:00 pm
Palazzo Ducale - Sala del Maggior Consiglio
Edoardo Boncinelli, Sean Carroll
Endless forms most beautiful. The new science of Evo-Devo

November 7th

9:30 am
Palazzo Ducale - Sala del Maggior Consiglio
Dan Bitan, Hasan Dweik, Sari Nusseibeh, Torsten Wiesel, Menahem Yaari
World Science Day for Peace and Development

6:00 pm
Palazzo Ducale - Sala del Maggior Consiglio
Theodor Haensch, Massimo Inguscio
A passion for precision