



Planetarium of Turin  
Museum of Astronomy and Space

**Infini.to** consists of the interactive **Museum of Astronomy and Space** and one of the most advanced **Digital Planetaria** in Europe.

It is a modern Museum of science, a **Science Centre**. Home to many interactive installations that allow visitors to experience and explore astronomical themes.

Space travel to **Mars**, simulations of the **gravitational force** of Jupiter, manipulation of **magnetic** fields, 3D visions of the **Universe** and voyages among thousands of **stars** tracing the latest cosmological discoveries, are just some of the activities!

Light and sounds from outer space accompany the public from the first floors of the museum into mysterious places to discover **true cosmic secrets**.



## THE HISTORY

**Infini.to** was born in the hills of Pino Torinese September 27, **2007**. Today it is a reality rooted in the territory of Piedmont with contacts with the most important Italian and international science centers. Added to these are university institutions, research institutes and companies that expand the network with which the Museum implements its mission: communicating astronomy to the public. For this end at Infiniti.to the science presenters are experienced in the field of education, communication and training and able to realize the daily activities and the national or international projects.

The flagship of Infini.to is its digital planetarium. Completely renovated in March 2013, has a projection system among the most advanced in the world.

In the same year was opened a new museum wing that includes classrooms.

In October 2014 Infini.to changed its offering to the public with new displays. Astronomy and astrophysics are continually evolving and so is Infini.to, always up to date on the latest research frontiers, it has evolved and changed face, renewing its content and its communication tools. Newly installed interactive stations use cutting-edge communication techniques, spectacular, immersive and engaging, allowing to tackle new topics and fascinating.

### **Charter Members**

Piedmont Region – Department of Culture

Province of Turin

City of Pino Torinese

INAF (National Institute of Astrophysics) – Astrophysical Observatory of Turin

University of Turin



## STRUCTURE

The **Museum structure** evokes a **celestial object** that really exists: a binary system consisting of a red giant star and a black hole. The sphere that encloses the hall of the Planetarium is the star, while the crystal cone, leading from the floor down to the -3, reproduces the jet astrophysicist of a black hole on the top floor of the Museum. The spiral ramps represent the gas, from the giant star spiraling down and being sucked into the black hole.

The **Planetarium**, which is located inside the Infini.to Museum, uses a **computerized digital graphics system**. The projection system used, **Digistar5**, produced by the American company Evans & Sutherland, is among the most advanced in the world.

A system of 9 computers manages the projection and sound providing the possibility of more and more realistic space travel. The **fulldome** vision is made with 2 JVC 4K projectors, which have high resolution and image sharpness for a realistic night sky. The Digistar5 employs a highly flexible technology that allows you to customize real-time astronomical shows adapting to different audiences.

With this technology and the use of the Digital Universe, a database of the sky built on observations of the largest telescopes from Earth and from space, you can hover over the Sun and planets, see close up spectacular three-dimensional detail, track satellites and space probes, get close to star clusters and galaxies, and virtually “walk” about the cosmos and travel through time to the beginning of the Big Bang.

Infini.to organizes monthly appointments dedicated to **sky observation**, in collaboration with the near Astrophysical Observatory of Turin.



## EXPERIENCES AND SKILLS

The main activity of Infini.to is **science communication**, in particular in **astronomy** and **cosmology**, but in general in mathematics, physics and technology, with particular focus on the scientific method, on the rational thinking and on the unification of the so called "two cultures".

The ambitious goal of Infini.to is to foster his role of cultural point of reference, as great laboratory of astronomy and science in general both at national and international level.

Infini.to has been active since 2007 in dissemination of scientific and technological culture. In these seven years it was devoted to:

- design and realize activities (guided tours, workshops, performances in the planetarium) and educational programs for schools of any levels in collaboration with Educational Institutions;
- organize workshops, meetings, seminars, conferences and lectures with experts in science and technology for schools, for the general public and specialists;
- organize cross-cultural events in music, theater, dance;
- organize events and participate to major events in the area with activities dedicated to science;
- produce and develop multimedia materials and tools and interactive systems for scientific communication;
- organize training events for teachers, adults and museum experts;
- organize training courses for the internal staff and visiting staff in accord with LLP programme (European Lifelong Learning Programme);
- develop educational materials and produce educational kits in collaboration with Educational institutions;
- collaborate with organizations and institutions in education at national and international level (MIUR, ASI, ESA and NASA, INAF, INFN, etc.)
- develop research programs in science education in collaboration with the University of Turin (Department of Physics and Department of Education)
- organize temporary exhibitions;
- participate in fairs and exhibitions;
- participate in local Museums Network activated by Torino Città Capitale;
- produce and provide editorial services.

## PUBLIC AND USERS

In seven years Infini.to has hosted more than 300.000 visitors, while more than 650.000 are the visitors for the shows in the planetarium.

The public of Infini.to is divided into two broad categories:

- general public from: Turin, Piedmont, coming from all over Italy and, in some cases, from abroad. Visitors are divided between young people, families and the elderly, including curious, passionate, amateur astronomers, researchers and professionals;
- teachers and students from schools of all levels: from kindergarten to university of the third age.

Infini.to is barrier-free, so can be visited by communities, groups of people with disabilities. The Staff is extremely prepared and careful in following any type of public.



## NATIONAL AND INTERNATIONAL PROGRAMS AND COLLABORATIONS

In the seven years of activity, Infini.to has activated and consolidated many forms of cooperation with Museums, Universities, Research Institutes, National and International Planetarium Network, NASA, ESA, participating in National, European and International projects.

In the period 2008/2009, Infini.to participated in the national program "**Open Schools**" (**MIUR Educational Ministry Program**) in cooperation with the Third Circle of Chieri.

In 2010, it hosted and participated in the selection for the **Olympics Italian Astronomy**, regional and national level, and hosted the regional edition in 2011-2012-2013-2014. In 2009 he also hosted the award ceremony for the **Olympics of Physics**.

It organized the first and the second edition (2010/2011-2011/2012) of the international project "**Mission X - Train like an astronaut!**" The project, coordinated by **NASA**, **ESA**, and in Italy by **ASI** (Italian Space Agency) in collaboration with Infini.to, Altec and Planetarium "Ulrico Hoepli" of Milan, involved 400 students at the national level between 8 and 12 years old and their teachers in a program aimed at encouraging children to proper nutrition and healthy physical activity.

The positive experience of partnership with Sci-Port (Science Center in Louisiana, Shreveport, LA, USA) on the project "Not Just Another Brick in the Wall" (2009/2010) involved Infini.to, as partner in continuing **grant** 2011/2012 "Not Just Another Building on the Street", with the support of the **U.S. State Department** and the **MCCA (Museum Community Collaboration Abroad)** for a project aimed to integrate the skills of formal and informal education in American schools and regional schools in Italy.

In 2011 the two-year project **Comenius Regio** "DoppioFocusLingueScienze" was completed in partnership with the **Regional Education Office**, the **Academy of Aix Marseille**, the **Regional Museum of Natural Sciences** and a network of schools between Italy and France.

Infini.to was a partner of the last editions of the National Program in science communication "Primaveradella Scienza" and "Dire fare scienza", sponsored by the Ministry of Education and coordinated by the **Museum of Science and Technology "Leonardo da Vinci"** in Milan; "Instructions for the Future ", coordinated by the **Immaginario Scientifico of Trieste** and the project "SKY @ SCHOOL" coordinated by the Astrophysical Observatory of Turin.

Infini.to has participated in major international meetings of planetarium all around the world as PlanIT (Italian Planetaria meeting), IPS (International Planetarium Society) and DUG (Digistar Users Group organization that bring together digital planetarium Digistar). In this occasions, the shows produced by Infini.to have won **several awards**.

Infini.to has fostered a numerous **collaborations and partners** that are summarized in this list:

- Universities and Research Institutes, Space Agencies, Networks of schools and networks of evaluation and scientific research, Science Museums and Planetariums networks, national and international Agencies, Associations, and Cultural Institutions.
- the world of scientific research (universities and research institutes: INAF, INFN, CNR, University of Turin, Turin Polytechnic, CINECA of Bologna, Department of Physics, University of Perugia, EGO VIRGO – Pisa);
- the world of space agencies (NASA, ESA, ASI)
- the world of education (Regional Education Office, networks of schools in the province, regional and national), networks ANISN, AVIMES, AIF
- the world of scientific museums (Museum of Science and Technology "Leonardo da Vinci" - Milan, Museum of the Baili - Saltara (PU), Centre for Science POST - Perugia, Musil - Brescia, Explora - Rome, Mediterranean Citadel of Science - Bari, Regional Museum of Natural Sciences of Turin, Museum for Environment, Foundation for Biotechnology)
- PlanIT network of Italian Planetariums
- DUG Digistar Users Group global network of digital planetarium Digistar
- IPS International Planetarium Society
- AAM American Association Museum
- MCCA Museum Community Collaboration Abroad
- ECSITE, European Network of Science Centres and Museums,
- ICOM, the International Council of Museums,
- ANMS, National Association of Science Museums,
- Local cultural associations (Association Amateur Astronomers, Ass Cultural, Educational Services)
- National Museum of Cinema, Turin Basilica of Superga, National Museum of Mountain, Medieval Town of Turin, Circolo dei Lettori, Office of International Affairs - City of Turin, Fondazione Merz)
- Aerospace Industries (Thales Alenia Space, Altec) and the food industry (Ferrero, Martini and Rossi, COOP)

- UNESCO International Year of Astronomy
  - Waiting for ESO 2009, ESO 2010
  - Adler Planetarium in Chicago
  - Virtual Laboratory
  - Disney Channel for project Year of Astronomy, National Geographic program on Astronomy for coordinated by Giovanni Bignami, RAI Educational programs for school
- Film Commission for film setting

