With the theme “Exploring”, the 2022 edition of Rome Science Festival (https://festivaldellescienzeroma.it/) offers a wide programme of lectures, exhibitions, shows, and laboratories for schools. INFN, project partner together with ASI, contributes to the programme with two show-lectures, centred, respectively, on the world of quanta and the discovery of the Higgs boson, which celebrates ten years this year. There will be several round tables that will deal with the issue of exploration from different points of view, weaving research in particle physics with other spheres of knowledge.

There will also be activities for schools, to lead children and kids in exploring our universe and its still unsolved mysteries.

To find out more: INFN at the 2022 Science Festival of Rome.

All the events will be held in Italian.

**Show-lectures**

**24 NOVEMBER, at 9:00 p.m., Sala Petrassi, Auditorium Parco della Musica**

**QUANTUM This word has changed physics**

With Paolo Fresu, trumpet player and writer, and Marco Pallavicini, vice president of INFN and professor at the University of Genoa.

Find out more and book. (https://festivaldellescienzeroma.it/eventi/quanto/)

**26 NOVEMBER, at 9:00 p.m., Sala Sinopoli, Auditorium Parco della Musica**

**ANATOMY OF A DISCOVERY. Dialogue in music from the Higgs boson to the dark universe**

With Stefania De Curtis, director of the Galileo Galilei Institute; Lucio Rossi, Coordinator of INFN Accelerator Committee; and Antonio Zoccoli, INFN president. Sara Zambotti, Rai radio host, will moderate. With musical performances by La Banda dell’Uku, readings by Francesco Patanè, illustrated by Luca Ralli.

Find out more and book. (https://festivaldellescienzeroma.it/eventi/anatomia-di-una-scoperta/)

**Lectures**

Find out more and book for the INFN lectures at the 2022 Rome Science Festival (https://collisioni.infn.it/evento/conferenze-tavole-rotonde-festival-scienze-roma-2022/).

**21 NOVEMBER, at 6:00 – 7:00 p.m., Sala Petrassi, Auditorium Parco della Musica**

**SCIENCE IN ROME. Why a Science Museum in Rome**

With Michele Lanzinger, MUSE, Francesca Scianitti, INFN, Catherine Franche, ECSITE, Giorgio Manzi, Sapienza Università di Roma

**26 NOVEMBER, at 3:00 p.m., Sala Ospiti, Auditorium Parco della Musica**

**INVESTIGATING ABYSSES. Scientific research in exploring seabeds**

Produced by CNR, INGV, INFN, ISPRA
With Francesca Alvisi, CNR – Institute of Marine Sciences researcher, Bologna; Nadia Lo Bue INGV researcher; Sante Francesco Rende, ISPRA researcher; and Piera Sapienza, researcher at the INFN Southern National Laboratories. Fabio Gallo, Linea Blu, will moderate

26 NOVEMBER, at 5:30 p.m., Teatro Studio Borgna, Auditorium Parco della Musica

**WHAT'S LEFT TO EXPLORE. New boundaries for known space**
Produced by ASI, ESA, INAF, INFN

With Mario Cosmo, ASI Science and Research director; Viviana Fafone, professor at the Tor Vergata University of Rome and INFN researcher; Paolo Ferri, former ESA Head of Space Operations; and Adriano Fontana, research director at INAF–Astronomical Observatory of Rome. Elisa Nichelli, astrophysicist, journalist and science communicator, will moderate

27 NOVEMBER, at 3:00 p.m., Sala Petrassi, Auditorium Parco della Musica

**WHERE IS AI LEADING US?**
Produced by GSSI, HT, IIT, INFN

With Daniele Bonacorsi, professor at the University of Bologna and INFN researcher; Paola Inverardi, Gran Sasso Science Institute rector; Francesco Iorio, bioinformatician, Human Technopole computational biology research centre; and Agnieszka Wykowska, Head of “Social Cognition in Human-Robot Interaction” Lab IIT

27 NOVEMBER, at 5:30 p.m., Teatro Studio Borgna, Auditorium Parco della Musica

**IS IT TIME FOR FUSION? Nuclear fusion, a complex global challenge**
Produced by CNR, ENEA, INFN

With Paola Batistoni, head of ENEA’s Fusion Energy Development Division; Daniela Farina, director of CNR – Institute for Plasma Science and Technology; and Marco Ripani, head of the DTT_INFN (Divertor Tokamak Test facility) project, researcher with the INFN Genoa Division. Silvia Kuna Ballero, astrophysicist, will moderate

Activities for school and families
Find out more and book for the INFN activities for schools and families at the 2022 Rome Science Festival (https://collisioni.infn.it/evento/infn-al-festival-delle-scienze-di-roma-2022-esplorare/).

**I’LL TELL YOU ABOUT THE UNIVERSE. Physics for children and kids**
A series of meetings for children and kids from 8 to 12 years, enriched with animations and cartoons, to stimulate curiosity about the mysteries of the universe.
Booking is mandatory: educational@musica-perroma.it (mailto:educational@musica-perroma.it)

22 NOVEMBER, at 10:15 a.m., Studio 2, Auditorium Parco della Musica

**DARK MATTER**
With Matteo Duranti, INFN Perugia Division researcher

23 NOVEMBER, at 10:15 a.m., Studio 2, Auditorium Parco della Musica

**GRAVITATIONAL WAVES**
With Pia Astone, INFN Rome Division research director

24 NOVEMBER, at 10:15 a.m., Studio 2, Auditorium Parco della Musica

**NEUTRINOS**
With Giuliana Galati, researcher with the Aldo Moro University of Bari and the INFN Bari Division
25 - 27 NOVEMBER, Ludoteca, Auditorium Parco della Musica

**HEPScape - The High Energy Physics escape room**
Organised by INFN Rome Division and Sapienza University of Rome

**INFN at the Festival of Science in Cagliari**

New technologies and quantum computing, black holes, and science books: INFN is also participating this year in the Festivalscienza, in Cagliari from 10 to 13 November, with the theme “Science & Technology”.

Find out more
(https://collisioni.infn.it/evento/infn-festivalscienza-cagliari-2022/)

All the events will be held in Italian

10 NOVEMBER, at 4:00 – 7:00 p.m., Rectorate Lecture Hall, Conference room, University of Cagliari

**INAUGURAL FESTIVAL LECTURE**
With Ezio Previtali, Director of INFN Gran Sasso National Laboratories; and Anna Grassellino, director of the Superconducting Quantum Materials and Systems Center, Fermilab, Chicago (via video). Alberto Masoni, University of Cagliari, INFN research director, and Paolo Magliocco, science journalist are coordinating the event.

10 NOVEMBER, at 9:00 – 11:30 a.m., Fondazione di Sardegna, Conference room

**FOR A HANDFUL OF BOOKS... ABOUT SCIENCE**
Activities for high school students
With Viviana Fanti and Corrado Cicalò, University of Cagliari, INFN

10 NOVEMBER, at 10:00 – 11:30 a.m., EXMA, Conference room

**CHASING BLACK HOLES WITH THE EVENT HORIZON TELESCOPE. IS EINSTEIN STILL RIGHT?**
With Ciriaco Goddi, astrophysicist at the University of Cagliari, INAF, and INFN; and Maria Felicia de Laurentis, astrophysicist at the University of Naples, INAF, and INFN. Matteo Tuveri, INFN Cagliari Division and University of Cagliari, will moderate.

**INFN at Futuro Remoto**

“Equilibriums” is the theme of the XXXVI edition of Futuro Remoto (“Distant Future”), which will be held from 22 to 27 November in Naples and in which INFN will participate with various initiatives. This year, the programme involves exhibitions and live events hosted by the Città della Scienza museum, but also an offering of online events.

Find out more (https://collisioni.infn.it/evento/infn-futuro-remoto-2022-equilibri/)

All the events will be held in Italian.

FROM 22 TO 27 NOVEMBER, Spazio Galilei, Città della Scienza

**SPACE (TO THE FUTURE)**
Exhibition curated by the Fondazione Idis - Città della Scienza, in collaboration with universities and research bodies, dedicated to exploring the universe that humanity has conducted over time with different investigation methods, to the current knowledge and questions still unanswered.

23 NOVEMBER, at 10:45 a.m. – 12:15 p.m., ONLINE

**Gamma Rays and the Cherenkov Telescope Array Observatory: A Glance at the Explosive Universe!**
For high school students, produced by the INFN Naples Division
With Carla Aramo, INFN Naples Division; Alba Fernández Barral, Cherenkov Telescope Array Observatory (CTAO); and Anna Wolter, INAF - Brera Astronomical Observatory
24 NOVEMBER, at 10:30 – 11:30 a.m., Sala Averroè, University of Naples Federico II

**INVESTIGATING BLACK HOLES WITH THE EVENT HORIZON TELESCOPE**

Produced by the Department of Physics, University of Cagliari, INAF, INFN

With Ciriacio Goddi, researcher at the University of Cagliari, INAF and INFN; and Mariafelicia de Laurentis, researcher at the University of Naples Federico II, INAF and INFN

FROM 25 NOVEMBER, at 9:00 a.m.-2:00 p.m., 26-27 NOVEMBER, at 10:00 a.m. – 5:00 p.m.

**DARKSIDE AND THE EQUILIBRIUM BETWEEN ORDINARY MATTER AND DARK MATTER**

Laboratories and demonstrations by the “E. Pancini” Department of Physics of the University of Naples Federico II and the INFN Naples Division

With Francesco Di Capua, Giuliana Fiorillo, and Giuseppe Matteucci, researchers with the “E. Pancini” Department of Physics at the University of Naples Federico II and INFN

25 NOVEMBER, at 7:00 - 8:30 p.m., Sala Newton, Città della Scienza

**QUANTUM. This word has changed physics**

With Marco Pallavicini, vice president of INFN and professor of the University of Genoa, and Lorenzo Hengeller, pianist and composer

**Higgs10**

Events organised by the INFN Divisions and ATLAS and CMS collaborations to celebrate 10 years since the discovery of the Higgs boson continue.

_The event will be held in Italian._

9 NOVEMBER, at 6:45 p.m., Aula Magna Polo Carmignani, Pisa

**EXPLORING THE UNIVERSE. 10 years of Higgs boson**

Organized for the 2022 Higgs conference in Pisa

Round table with Stefania de Curtis, director of the Galileo Galilei Institute; Riccardo Barbieri, Emeritus Professor of the Scuola Normale Superiore of Pisa; Marumi Kado, director at the Max Planck Institute; Michelangelo Mangano, CERN Department of Theoretical physics; and Guido Tonelli, Emeritus Professor at the University of Pisa. Silvia Bencivelli, science journalist, will moderate.

Find out more (https://higgs10.infn.it/evento/esplorando-luniverso/)