
1st BiCoQ Conference:
from gravity to particles
Jun 15 – 19, 2026
Dipartimento di Fisica G. Occhialini
Università Degli Studi di Milano-Bicocca

1st BiCoQ Conference: from gravity to particles

Professor Luca Beverina

Vice Rector for third mission and relations with businesses

1st BiCoQ Conference: from gravity to particles

Professor Claudia Riccardi

Director, Physics Department

BICOQ

Centro Bicocca di Cosmologia Quantitativa

DIPARTIMENTI DI ECCELLENZA
2023 - 2027

RESEARCH

Tackling fundamental questions on the nature of gravity and matter in the Cosmos

SYNERGIES

Linking research programs with key infrastructures

ADVANCED STUDIES

Promoting excellence in teaching advanced physics within the department's programs

COMMUNICATION

Fostering the exchange of ideas within the research community and society

https://bicoq.fisica.unimib.it/

BiCoQ

Centro Bic

DIPARTIMENTI DI ECCELLENZA — 2023 - 2027 —

BiCoQ lines of research

DIPARTIMENTI DI ECCELLENZA — 2023 - 2027 —

new models and analysis techniques for high-precision measurements of gravitational waves

development of sensors for high frequency (>1 MHz) gravitational antennas

innovative techniques to characterise the nature of dark matter and dark energy through astrophysical probes

new devices for photon detection in the extreme ultraviolet to search for dark matter candidates beyond WIMP

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AIPHY School Series

The AIPHY school series is dedicated to the application of AI and modern computational methods in Physics. The schools are jointly organized by the Department of Physics of the University of Milano-Bicocca, INFN and the hosting institutions.

Next school: AIPHY2: Bayesian Statistics

Organised jointly by the Department of Physics of the University of Milano-Bicocca, the Gran Sasso Science Institute and INFN, the school will take place at the **Gran Sasso Science Institute, from Monday, Oct 5th to Friday, Oct 9th**, is offered with no registration fee and includes coffee breaks and lunches.

Over the course of five days, participants will start from the core principles of Bayesian Data Analysis to the advanced frontiers of Bayesian Neural Networks and Simulation-Based Inference. Common pitfalls in application will be analysed and a flagship case study in the detection and characterisation of gravitational waves will be studied. The schedule integrates extensive hands-on sessions after each lecture. The **program also features a half-day visit to the underground facility of the Laboratori Nazionali del Gran Sasso**.

Registration are open above until end of June, 2026 through the school website.

Dates: 5–9 Oct 2026
Place: Gran Sasso Science Institute
Website: https://agenda.infn.it/event/51770/

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The 1st BiCoQ Conference: from gravity to particles

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Aims: to stimulate dialogue at the intersection of gravitational-wave astronomy, dark matter physics, and experimental cosmology

Plenary sessions will review the state-of-the-art in our view of the fundamental constituents of the universe.

Three focused parallel sessions will discuss ongoing efforts and next steps in:

1. constraining dark matter and dark energy with astrophysical probes;
2. the physics of gravitational waves from binary systems;
3. the search for new physics with detections of dark matter candidates beyond the standard model or ultra-high frequency gravitational waves.

For detailed program, abstract, and logistics see the conference website:
https://indico.global/event/16054/

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Key logistics

DIPARTIMENTI DI ECCELLENZA — 2023 - 2027 —

Speakers: please upload your slides on INDICO before your session starts

Posters: flash talks (2 slides) on Thursday morning. Please upload your slides on INDICO before the dedicated session. Poster session on Thursday afternoon.

Rooms: Plenary talks will be held in U3-03; parallel sessions will be in U3-01 and U3-03 (see schedule for details) Room U3-05 will be available to conference participants throughout the conference.

Breaks (welcome reception, lunches, coffee breaks) will be served in Galleria della Scienza

WiFi: eduroam is widely available on campus

Dinner and nightlife: See INDICO for a selection of places nearby. Neighborhoods such as “Isola”, “Navigli”, or “Brera” offer a wide selections of bars, restaurants, clubs. Ride the metro if you can!

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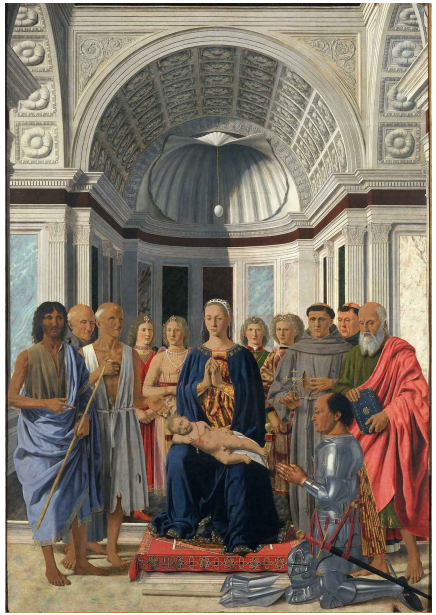
Friday tour:
visit to Brera Pinacoteca and Observatory

Registrations are now closed for the tour to Brera Observatory.
In the same site, we highly recommend visiting the Pinacoteca (entry ticket can be purchased on the day, so you can join also if you did not register for the visit at the Observatory). See the INDICO page for details.

The gallery at the Observatory contains instruments dating back to 1700



In the Pinacoteca, you can admire some of the masterpieces of Italian art, including the BiCoQ egg!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