



XXIII International Conference on Recent Progress in Many-Body Theories

and

School on Quantum Simulation

Second Circular

URL: <https://rpmibt23.mi.infn.it>

The **23rd** International Conference on **Recent Progress in Many-Body Theories**, “**RPMBT-23**”, will be held in Milan (Italy), September 14-18, 2026.

The RPMBT conference series (<https://rpmibt.physics.indiana.edu>) is intended to cover in a broad fashion the theoretical tools developed to tackle the quantum many-body problem together with their major fields of application. One of the main aims of the series is to foster the exchange of ideas and techniques among scientists working in the diverse areas of many-body physics.

The RPMBT-23 will present the **Feenberg Medal Award**, for firmly established work that has significantly advanced the field of many-body physics, and the **Hermann Kümmel Early Achievement Award**, to encourage and reward excellence in the field of quantum many-body theory for researchers within a period of 6 years from their PhD.

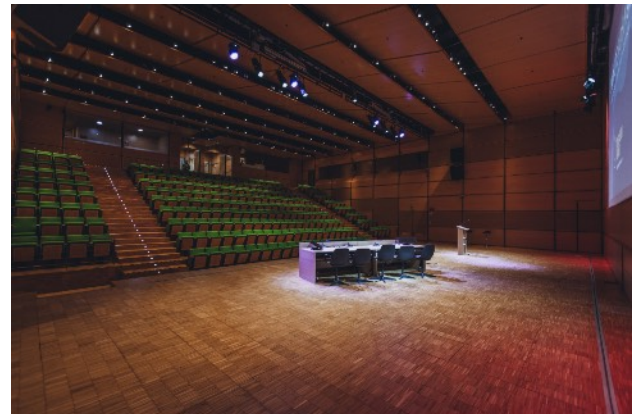
The RPMBT-23 will be preceded by a 3-day **School on Quantum Simulation**, on Sept. 9-11, 2026, aimed at young researches (Master, PhD and postdoc). This engaging event will offer a unique opportunity to delve into the fascinating world of quantum simulation of many-body systems using virtual and real quantum hardware (more info below).

The topics of the RPMBT-23 scientific program will include

- Quantum Fluids
- Condensed Matter Physics
- Nuclear and Subnuclear Physics
- Quantum Field Theory
- Astrophysics
- Atomic and Molecular Physics
- Quantum Chemistry
- Complex Systems
- Strongly Correlated Electronic Systems
- Quantum Magnetism
- Ultracold Atoms
- Quantum Information Theory and Technologies

Conference Venue

The RPBMT-23 conference will be held in at the *MonteRosa91* conference center (<https://www.monterosa91.it/>) in Milan. *MonteRosa91* is located at walking distance from the new CityLife district. It is served by the (underground) Metro station “Lotto” and it is easily reachable from most central locations of the city through surface and underground public transport.



Abstract Submission (Deadline: May 31st, 2026)

We now call for the abstract submission for both *oral* and *poster presentations* during the conference. The deadline for the abstract submission is May 31st, 2026, oral presentations will receive full consideration if submitted before this date. Decision of acceptance of oral and poster presentations will be made by the Committee upon evaluation of the submitted abstracts. Acceptance decisions will be communicated by June 30th at latest. *Multiple poster submissions* from a single participant are accepted.

Abstracts are to be submitted by filling the web form at URL https://rpmmt23.mi.infn.it/?page_id=529. Please, prepare your contribution as a single PDF file according to the templates found at this link. Additional abstracts can be submitted by filling the form again.

School of Quantum simulation (info and location)

The **School on Quantum Simulation** will provide an intensive three-day introduction to modern approaches to quantum simulation of many-body systems on quantum hardware, combining conceptual lectures with hands-on computational activities.

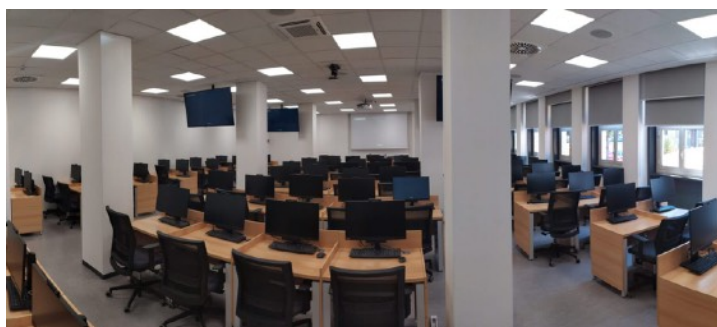
The school is organized around the natural workflow of a quantum simulation problem:

- Day 1: preparation of physically relevant quantum states, with emphasis on variational approaches and ground-state preparation;
- Day 2: real-time evolution of many-body systems through digital quantum simulation techniques;
- Day 3: analysis, validation, and benchmarking of simulation results, including the role of errors, entanglement growth, and scalability limitations.

Morning sessions will consist of lectures introducing the theoretical and physical foundations, while afternoon sessions will be devoted to guided hands-on activities in a computational laboratory. Practical sessions will make use of Jupyter notebooks and will include simulations on both emulated and real quantum hardware whenever possible.

The school is intended for advanced Master's students, PhD students, and early-career researchers with an interest in many-body physics and quantum simulation. The overall level will be intermediate and assumes familiarity with basic quantum mechanics and many-body concepts. *Pre-reading material will be distributed for participants.*

This is a satellite event to RPMBT-23 and it will be held at the Physics Department of the University of Milan, located at Via Celoria n. 16, from Wednesday to Friday preceding the RPMBT event (Sept. 9-11th).



Registration for the RPMBT-23 conference and the School of Quantum Simulation

The registration will open soon through the main conference website. Registrations fees to the RPMBT-23 event are:

- **Regular participants** (by July 15th, 2026): **430€.**
- **Regular participants** (late registration): **530€.**
- **Students** (by July 15th, 2026): **200€.**
- **Students** (late registration): **250€.**
- **Accompanying person** at the conference dinner: **50€**

Regular and student fees include participation, welcome reception on Sunday (Sept. 13th), coffee breaks and conference dinner.

Registration fees for the Quantum Simulation School are **20€**. These are *waived for all participants to the school who also attend the main conference.*

Financial support for young researchers

The RPMBT-23 is planning to provide a limited amount of financial assistance to support participation of young researchers including students. The amount of available support will depend on the number of requests and the budget availability. Due to the limited nature of these funds, applicants are kindly asked to request financial assistance only in case of genuine need.

Accommodation

September is high season for travel to Milan. Although we have avoided the main Fashion's week events, there is still pressure of accommodation availability due to other international fairs. We recommend interested participants to book their accommodation as early as possible.

A number of hotels nearby the venues that are known to provide good service are listed on the conference website. Short-term rental solutions (e.g., AirBnB-style for full room/apartment) can also be cost effective.

We also recommend to consider accommodation solutions along the underground Metro line 1 (red line) and line 5 (lilac line), since both provide fast connection to the MonteRosa venue at station "Lotto".

Travel information

The city of Milan is served by three international airports: Malpensa (MXP), Linate (LIN) and Bergamo - Orio al Serio (BGY). All airports have regular bus service to Milan Central Railway station ("Milano Centrale"). Malpensa (MXP) is the main international hub and can also be reached by train. Linate (LIN) is the city airport and the easiest to reach since it is served by the underground Metro line 4 (blue line).

If arriving by train, "Milano Centrale" and "Milano Cadorna" railway stations are well connected to the both the conference venue and the Physics department (school's venue).

Detailed travel information will be available on the website.

Important Dates

- Abstract submission deadline (final): May 31st, 2026.
- Registration will open: May 30th, 2026.
- Communication of abstract acceptance: by June 30th, 2026.
- Early registration fee deadline: July 15th, 2026.
- Announcement of the *Feenberg Memorial Medal* Award: expected June 2026.
- Announcement of the *Kümmel Early Achievement* Award: expected June 2026.
- School of Quantum Simulation: 9-11 September 2026.
- RPMBT-23 Conference: 14-18 September 2026.

Contact information

Local Organizing Committee: rpmbt23@mi.infn.it

We look forward to welcome you in Milan, in September 2026!

Best regards,

The RPMBT-23 Local Organizing Committee.

International Advisory Committee

Raymond F. Bishop (Manchester, UK)
Jordi Boronat (Barcelona, Spain)
Siu A. Chin (College Station, Texas, USA)
John W. Clark (St. Louis, Missouri, USA)
Bhanu P. Das (Kolkata, India)
Joaquín E. Drut (Chapel Hill,
North Carolina, USA)
Davide E. Galli (Milan, Italy)
Jong Han (Buffalo, New York, USA)
Morten Hjorth-Jensen (Oslo, Norway)
Alessandro Lovato (Lemont, Illinois, USA)

Efstratios Manousakis (Tallahassee,
Florida, USA)
Anna Minguzzi (Grenoble, France)
Takashi Nakatsukasa (Tsukuba, Japan)
David Neilson (Antwerp, Belgium)
Gerardo Ortiz (Chair) (Bloomington,
Indiana, USA)
Khandker F. Quader (Kent, Ohio, USA)
Heidi Reinholz (Rostock, Germany)
Armen Sedrakian (Frankfurt, Germany)

Local Organizing Committee

Carlo Barbieri (Milan, Italy) – *Chair*
Gianluca Bertaina (Turin, Italy)
Giuseppe Carleo (Lausanne, Switzerland)
Guido Fratesi (Milan, Italy)
Davide E. Galli (Milan, Italy)

Simone Montangero (Padua, Italy)
Pierbiagio Pieri (Bologna, Italy)
Enrico Prati (Milan, Italy)
Alessandro Roggero (Trento, Italy)
Klejdja Xhani (Turin, Italy)

Sponsors and endorsers



Previous RPMBT editions

RPMBT-22, Tsukuba, Japan; 2024 (23 – 27 September, 2024)
RPMBT-21, Chapel Hill, North Carolina, USA; 2022 (12 – 16 September, 2022)
RPMBT-20, Toulouse, France; 2019 (9 - 13 September, 2019)
RPMBT-19, Pohang, South Korea; 2017 (25 - 30 June, 2017)
RPMBT-18, Buffalo, NY, USA; 2015 (16 - 21 August, 2015)
RPMBT-17, Rostock, Germany; 2013 (8 - 13 September, 2013)
RPMBT-16, Bariloche, Argentina; 2011 (28 November - 2 December, 2011)
RPMBT-15, Columbus, Ohio, USA; 2009 (27 - 31 July, 2009)
RPMBT-14, Barcelona, Spain; 2007 (16 – 20 July, 2007)
RPMBT-13, Buenos Aires, Argentina; 2005 (5 – 9 December, 2005)
RPMBT-12, Santa Fe, New Mexico, USA; 2004 (23 – 27 August, 2004)
RPMBT-11, Manchester, UK; 2001 (9 – 13 July, 2001)
RPMBT-10, Seattle, Washington, USA; 1999 (10 – 15 September, 1999)
RPMBT-9, Sydney, Australia; 1997 (21 - 25 July, 1997)
RPMBT-8, Schloss Seggau, Styria, Austria; 1994 (22 - 27 August, 1994)
RPMBT-7, Minneapolis, Minnesota, USA; 1991 (26 - 31 August, 1991)
RPMBT-6, Arad, Israel; 1989 (5 - 10 November, 1989)
RPMBT-5, Oulu, Finland; 1987 (3 - 8 August, 1987)
RPMBT-4, San Francisco, California, USA; 1985 (12 - 17 August, 1985)
RPMBT-3, Odenthal-Altenberg, Germany; 1983 (29 August - 3 September, 1983)
RPMBT-2, Oaxtepec, Mexico; 1981 (12 - 17 January, 1981)
RPMBT-1, Trieste, Italy; 1978 (2 - 7 October, 1978)

Information on **past RPMBT editions** can be found at <https://rpmibt.physics.indiana.edu>.