



The 12th International Conference on Direct Reactions with Exotic Beams DREB2024

Wiesbaden, Germany, June 24th – 28th, 2024

Third Circular

The 12th international conference on Direct Reactions with Exotic Beams (DREB2024) will be held in Wiesbaden, Germany, from June 24th to 28th, 2024. The conference is hosted jointly by GSI/FAIR and the TU Darmstadt. This DREB conference is part of the biennial series, which began in 1999 at MSU, East Lansing, at the initiative of physicists working in the field from MSU, IPN-Orsay, and FSU. The following meetings were held at Orsay (2001), Guildford (2003), East Lansing (2005), Wako (2007), Tallahassee (2009), Pisa (2012), Darmstadt (2014), Halifax (2016), Matsue (2018), and Santiago de Compostela (2022).

Scientific program

The scientific program is devoted to the latest experimental and theoretical research and developments in nuclear reactions with exotic nuclei, and includes the following subjects relevant to direct reactions:

- Spectroscopy of exotic nuclei
- Shell structure and evolution
- Nuclear force and short-range correlations
- Bulk properties and collective excitations
- Advances in direct reaction theory
- New instrumentation for direct reaction studies
- Ab initio methods for structure and reactions
- Nuclear astrophysics

In addition, DREB24 will feature two keynote opening talks, a special talk on direct-reaction history and DREB for the occasion of the silver birthday of the conference, and a perspective talk:

- Alexandra Gade (FRIB, USA), Keynote talk on experiment
- Kazuyuki Ogata (Kyushu University, Japan), Keynote talk on theory
- Yorick Blumenfeld (IJCLab, France), Special talk on DREB
- Olivier Sorlin (GANIL, France), Perspective talk

DREB24 has 11x registered participants. The conference has scheduled 56 physics talks. The program is available on the indico webpage of the conference <https://indico.gsi.de/event/17568/>, where additional information on DREB2024 can be found.

A poster session with 50 contributions is organized on Tuesday evening. Light catering and beverages will be served. The best and second best experimental and theoretical posters will be rewarded after selection from a committee composed of IAC members.

Social program

The program includes an excursion on Wednesday afternoon followed by the conference dinner. Buses will take you either to Eberbach Monastery where you can explore this historical monastery and local wineries or to FAIR with a tour through the construction site of the future facility.

The conference dinner will take place on a boat, starting in Rüdesheim. We will follow the Rhine river to Lorelei and back. Buses will take you back to Wiesbaden.

Call for bids for DREB26

With this circular, we invite the participants and IAC members to consider submitting a bid for hosting the next DREB conference, expected to take place in 2026.

Light proposals of 2-3 pages should be sent to the organizers (dreb2024@ikp.tu-darmstadt.de) before June 24, 2024. Proposals are expected to contain information on the proposed organizing team, the location of the meeting, the available infrastructure (access from international airports, conference room capacity and description, ...) and an estimate of conference fee. It is reminded that DREB has kept the tradition of making efforts to make the conference accessible to most, in particular students with reduced fee.

The proposals will be distributed to the IAC members at the beginning of the conference. A dedicated IAC meeting will take place on Thursday June 27. The proponents are expected to give then a short presentation followed by a discussion (15' per bid in total). The IAC members who attend the meeting will vote for the host of the next DREB conference during the meeting. A link will be provided in due time for remote participation for those who are not on site.

International Advisory Committee

N. Aoi (RCNP, Japan), M. Assié (IJCLab, France), D. Bazin (FRIB, USA), C. Bertulani (Texas A&M Commerce, USA), A. Bonaccorso (INFN-Pisa Italy), P. Capel (JGU Mainz, Germany), W. Catford (University of Surrey, UK), K. Cook (ANU, Australia), D. Cortina-Gil (University of Santiago de Compostela, Spain), H. Crawford (LBNL, USA), W. Dickhoff (Washington University Saint Louis, USA), M. Dupuis (CEA, France), F. Flavigny (LPC Caen, France), H. Fynbo (Aarhus University, Denmark), S. Freeman (University of Manchester, UK; CERN, Switzerland), B. Kay (ANL, USA), A. Moro (University of Sevilla, Spain), D. Morrissey (FRIB, USA), T. Nakamura (Tokyo Institute of Technology, Japan), F. Nunes (FRIB, USA), N. Orr (LPC Caen, France), D. Y. Pang (Beihang University, China), G. Rogatchev (Texas A&M Commerce, USA), K. Sekiguchi (Tokyo Institute of Technology, Japan), S. Shimoura (RIKEN Nishina Center, Japan), V. Soma (CEA, France), T. Uesaka (RIKEN Nishina Center, Japan), N. Timofeyuk (University of Surrey, UK), Y. L. Ye (Peking University, China).

Local Organizers

Thomas Aumann (TU Darmstadt, GSI), Meytal Duer (TU Darmstadt), Alexandre Obertelli (TU Darmstadt), Haik Simon (GSI), Kathrin Wimmer (GSI).