

The 11th International Workshop on Chiral Dynamics (CD2024)

August 26 - 30, 2024, Ruhr University Bochum, Germany

Second Circular

About the Conference

This series of workshops started at MIT in 1994 and brings together researchers every three years to discuss the status, progress and challenges in the physics of low-energy QCD, Goldstone Boson dynamics, meson-baryon interactions, chiral perturbation theory, few-hadron systems, lattice QCD and related topics. The workshop series provides a forum for discussing the latest results and exchanging ideas between theorists and experimentalists. Previous workshops of this series took place in Pisa (2015), Durham, NC (2018) and Beijing/online (2021). More information can be found at the website <https://www.indico.tp2.ruhr-uni-bochum.de/event/2/>, which is updated regularly.

The CD2024 Workshop is supported by Ruhr University Bochum and by the European Research Council (ERC) AdG NuclearTheory, grant No 885150.

The workshop will be organized in the form of plenary sessions and working group (WG) sessions running in parallel. The plenary program will feature a special session with three talks:

David Gross (tbc), KITP	<i>50 years of QCD</i>
Ulf-G. Meißner, Bonn U	<i>Chiral Dynamics — Quo Vadis?</i>
Martin Savage, U Washington	<i>Quantum Computing for Nuclear Physics</i>

The confirmed plenary speakers include (talk titles are preliminary):

Sinya Aoki, Tsukuba U	<i>Interactions between two hadrons in lattice QCD</i>
Raul Briceno, Berkeley	<i>Few-hadron scattering on the lattice</i>
Gilberto Colangelo, U Bern	<i>Data-driven & disp approaches to hadronic contrib. to $g - 2$</i>
Sara Collins, U Regensburg	<i>Nucleon form factors from lattice QCD</i>
Li-Sheng Geng, Beihang U	<i>Two-pole structures in QCD</i>
Alex Gnech, Old-Dominion U	<i>Studying electroweak few-body observables in chiral EFT</i>
Jeremy Green, DESY	<i>Status of two-baryon scattering in lattice QCD</i>
Feng-Kun Guo, ITP Beijing	<i>ChPT with axions</i>
Franziska Hagelstein, U Mainz	<i>Nucleon structure in light muonic atoms</i>
Hans-W. Hammer, TU Darmstadt	<i>The nucleon radius puzzles — or not?</i>
Xiaolin Kang, China U of Geoscience	<i>Light meson decays at BESIII</i>
Bastian Kubis, Bonn U	<i>C and CP violation in EFT</i>
Dean Lee, MSU	<i>Recent applications of nuclear lattice EFT</i>
Andrii Maltsev, TU Munich	<i>Chiral anomaly at COMPASS</i>
Colin Morningstar, Carnegie Mellon	<i>Nucleon resonances from lattice QCD</i>
Maria Piarulli, Washington U St.Louis	<i>Chiral EFT for few-nucleon and/or nuclear systems</i>
Fernando Romero-López, MIT	<i>Three hadron dynamics from lattice QCD</i>
Jacobo Ruiz de Elvira, U Madrid	<i>Roy-Steiner equations for πN scattering & nucleon resonances</i>
David Ruth, U New Hampshire	<i>Low-q spin structure at JLab</i>
Sören Schlimme, U Mainz	<i>Overview of MESA</i>
Chien-Yeah Seng, MSU	<i>Semi-leptonic kaon decays & the precise determination of V_{us}</i>
Nikos Sparveris, Temple U	<i>JLab & Mainz exp for spin-indep. generalized nucleon polariz.</i>
Jordy de Vries, U Amsterdam	<i>Neutrino-less double beta decay</i>
Hartmut Wittig, U Mainz	<i>The puzzles of the muon anomalous magnetic moment</i>

The three working groups comprise:

WG1: Goldstone-Boson Dynamics

Conveners:

Antoine Gérardin (Centre de Physique Théorique, Marseille, France)
Martin Hoferichter (University of Bern, Switzerland)
Karol Kampf (Charles University Prague, Czech Republic)
Susan Schadmand (GSI Darmstadt, Germany)

WG2: Hadron Structure and Meson-Baryon Interactions

Conveners:

John Bulava (Ruhr University Bochum, Germany)
Alexandre Deur (Jefferson Lab, Newport News, USA)
Feng-Kun Guo (ITP, CAS, Beijing, China)
Maxim Mai (University Bonn, Germany)

WG3: Few-Body Physics

Conveners:

Jambul Gegelia (Ruhr University Bochum, Germany & Tbilisi State University, Georgia)
Luca Girlanda (Salento University, Italy)
Jeremy Green (DESY Zeuthen, Germany)
Kimiko Sekiguchi (Tokyo Institute of Technology, Japan)

Abstract submission

Submission of abstracts for contributions to the working groups is highly encouraged. Abstracts will be finally reviewed by the Conveners of the WGs, who are responsible for preparing the program of parallel sessions.

Deadline for abstract submission has been extended to May 15, 2024. All instructions regarding abstract submission can be found on the website.

Registration, conference fee and cancellations

Those planning to attend the workshop are kindly requested to complete the registration form, which will be available at the conference website. **Registration will close on July 31, 2024.**

The conference fee for CD2024 is:

- 450 Euro for general participants if registered before May 31, 2024 (early bird registration)
- 500 Euro for general participants if registered after June 1, 2024 (regular)
- 300 Euro for students¹ if registered before May 31, 2024 (early bird student registration)
- 350 Euro for students¹ if registered after June 1, 2024 (regular student registration)

The fee package includes:

- Participation in scientific sessions
- Coffee breaks and canteen vouchers for lunches
- Welcome reception on Monday, August 26th
- Participation in the social program on Wednesday, August 28th
- Conference dinner on Thursday, August 29th

The conference fee has to be paid either via a credit card or by bank transfer. The required payment information will be provided after completing the registration.

If you need to cancel your participation after paying the conference fee, the full amount minus 10% service charge will be refunded for cancellations made before July 31, 2024. No refund is possible for later cancellations. Cancellations must be communicated to cd2024@ruhr-uni-bochum.de.

¹ To confirm the status, an email from the supervisor to cd2024@ruhr-uni-bochum.de is required.

Financial support

We have some restricted funds to provide financial support to a limited number of young researchers. Requests should be sent to cd2024@ruhr-uni-bochum.de with a brief justification of the need and will be evaluated on a case-by-case basis. Requests for support should be sent by May 15th, 2024.

Host institution and venue

The CD2024 workshop is organized by Ruhr University Bochum and will be held in the lecture halls of the Convention Centre of the Ruhr University Bochum. The campus is located outside of the Bochum downtown area and can be conveniently reached using the subway line U35. For further details and directions see the conference website.

Accommodation

We arranged for a block of rooms at several hotels in the downtown area of Bochum and within the walking distance from the campus of Ruhr University at reduced rates, which may be booked using the information provided on the conference website. It may also be worth checking internet prices for hotels. Notice that we have **not** commissioned any travel agencies to make arrangements for participants on behalf of the conference organizers.

Social program

On Monday August 26th after the last session, there will be a reception with light refreshments at the conference venue.

On Wednesday August 28th in the afternoon, all participants are invited to attend the astronomy show *Time Travel – From the Big Bang to Mankind* at the [Zeiss Planetarium Bochum](#). Details will be provided on the conference website later.

The conference dinner will be held in the evening of Thursday, August 29th, in the [restaurant Strätlingshof](#).

Local Organizing Committee

Evgeny Epelbaum (Ruhr-University Bochum) — chair
Hermann Krebs (Ruhr-University Bochum) — co-chair
John Bulava (Ruhr-University Bochum)
Jambul Gegelia (Ruhr University Bochum & Tbilisi State University, Georgia)
Mikhail Mikhasenko (Ruhr-University Bochum)
Stefanie Hohmann (Ruhr-University Bochum) — Secretary
Peter Druck (Ruhr-University Bochum) — IT Admin

International Advisory Committee

Mohammad Ahmed (North Carolina Central University, Durham, USA)
Balasubramanian Ananthanarayan (IIS, Bangalore, India)
Sinya Aoki (Tsukuba University, Tsukuba, Japan)
Silas Beane (INT, University of Washington, Seattle, USA)
Paulo Bedaque (University of Maryland, Maryland, USA)
Veronique Bernard (IJCLab, Orsay, France)
Johan Bijnens (University of Lund, Lund, Sweden)

Michael Birse (University of Manchester, Manchester, UK)
Jian-Ping Chen (JLab, Newport News, USA)
Vincenzo Cirigliano (INT, Seattle, USA)
Gilberto Colangelo (University of Bern, Bern, Switzerland)
Shuangshi Fang (IHEP, CAS, China)
Ruben Flores-Mendieta (University of San Luis Potosi, Mexico)
Simona Giovannella (INFN, Frascati, Italy)
Josè Goity (Hampton University & JLab, Newport News, USA)
Maarten Golterman (San Francisco State University, USA)
Harald Griesshammer (George Washington University, Washington DC, USA)
Feng-Kun Guo (Institute of Theoretical Physics, CAS, Beijing, China)
Marc Knecht (CNRS, Marseille, France)
Bastian Kubis (HISKP, University Bonn, Germany)
Laura Marcucci (University of Pisa, Pisa, Italy)
Judith McGovern (University of Manchester, Manchester, UK)
Ulf-G. Meißner (University Bonn & FZ Jülich, Germany; Tbilisi State University, Georgia)
Harald Merkel (Institut für Kernphysik, Mainz, Germany)
Jose Pelaez (University of Madrid, Madrid, Spain)
Daniel Phillips (Ohio University, Athens, USA)
Akaki Rusetsky (HISKP, University Bonn, Germany & Tbilisi State University, Georgia)
Christopher Sachrajda (University of Southampton, UK)
Stephen Sharpe (University of Washington, Seattle, USA)
Marc Vanderhaeghen (Institute of Nuclear Physics, Mainz, Germany)
Ubirajara Van Kolck (IJCLab, France & University Arizona, USA)
Hartmut Wittig (University of Mainz , Germany)
Bing-Song Zou (Institute of Theoretical Physics, CAS, Beijing, China)

Contact information

For more details or queries, please do not hesitate to reach out to the local organizing committee at Ruhr University Bochum, send an email to cd2024@ruhr-uni-bochum.de or visit our conference website: <https://www.indico.tp2.ruhr-uni-bochum.de/event/2/> .

Important dates

March 1st: Call for Abstracts opens

March 20th: Registration opens

May 15th: Abstract submission ends

May 31st: Early bird fee ends

June 28th – July 28th: Deadlines to profit from the hotel discounted rates

July 31st: Registration ends

We are looking forward to welcome you in Bochum!

The Organizers of CD2024