

Editorial: European Conference on Neutron Scattering 2023 in Garching

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Abstract. This edition of the European Conference on Neutron Scattering, which is held every four years, took place in Garching, Germany and gathered over 500 people from all areas of neutron science. From new source or instrumental concepts to fundamental physics, and chemistry, all areas of this community were represented. Lively discussions in the lecture halls, poster areas, and social events around this conference contributed to a very fruitful exchange of new ideas.

Hosted by the Heinz Maier-Leibnitz Zentrum (MLZ), the 8th European Conference on Neutron Scattering (ECNS) took place on the site of the TU Munich and in the vicinity of the Research Neutron Source Heinz Maier-Leibnitz (FRM II) in Garching/ Germany on March 20-23, 2023. The ECNS is organised by the European Neutron Scattering Association (<https://ensa.tudelft.nl/>) and thus, every four years, neutron scatterers and instrument developers from all over the world gather at another beautiful place for the ECNS to discuss new thoughts and ideas. From its first appearance on the calendar of the neutron scattering community in 1996 to the 8th edition in Garching the ECNS made a tour of Europe with stops in Budapest (1999), Montpellier (2003), Lund (2007), Prag (2011), Zaragoza (2015), and St. Petersburg (2019).

Being the first big neutron conference in person after the pandemic, the invitation to Garching was very well received: 538 scientists not only from 20 European countries but also from America, Asia, and Australia participated! They gave and listened to 165 talks, and presented and visited 277 posters during this four-days event.

The program of this conference, with sessions on scientific topics such as magnetism, soft matter, biology, including biological membranes and proteins, glasses and liquids, or

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functional materials, reflected the broad field of applications of neutron science. Two microsymposia were dedicated to Compact Accelerator-driven Neutron Sources (CANS) and deuteration services (organised by DEUNET). Neutron instrumentation and neutron source developments were presented with a variety of talks, posters, and many animated discussions in all areas of the conference. New instrument concepts for the European Spallation Source were not only discussed at the ECNS but also at the SAGA satellite workshop dedicated especially to a new GISANS instrument at the ESS. Contacts were further intensified at the conference dinner held at the famous Munich Hofbräuhaus. The participants enjoyed traditional Bavarian beer, food, and dances very much!

The conference was opened by a welcome address of the representative of German Ministry of Education and Research (BMBF) Dr. Renate Feldmann, of the Senior Vice President Research and Innovation of the Technical University of Munich, Prof. Gerhard Kramer as well as of the Scientific Director of the FRM II and MLZ Prof. Dr. Peter Müller-Buschbaum. Prof. Mirijam Zobel spoke on behalf of the German Committee Research with Neutrons (KFN) while the welcome speech from ENSA was held by Prof. Henrik Rønnow. They all pointed out the importance of neutron research as a tool to solve future challenges for science and society.

The conference location on the campus of the TUM and next to the site of FRM II offered the ideal infrastructure to accommodate the scientific program with its many parallel and poster sessions. The location was not accidental but chosen also for its vicinity to the FRM II. So after the closing speech of the Scientific Director of the FRM II and MLZ all the participants were given the possibility of a guided tour at the neutron source FRM II. Many took advantage of the offer. A novelty of this ECNS event was a new conference app. This could be easily downloaded from the conference web page and allowed to browse the sessions, read the abstracts, and by adding them to your agenda, to create your very own program for each event on your mobile. It was also used by the conference office to send messages and inform about changes in the program.

The final session of the last day chaired by the head of the ENSA, Prof. Henrik Rønnow celebrated the winners of the following prizes: The Neutron Instrumentation and Innovation Award was awarded to Dr. Alessandro Tengattini (ILL), "in recognition of his outstanding contributions to the development of Neutron Imaging, in particular for realising the NeXT-Grenoble instrument at the ILL and perfecting all its capabilities to the highest level that is achievable" (<https://www.ill.eu/about-the-ill/documentation/a-bit-of-history/prizes-and-honours>).

The Erwin Félix Lewy Bertaut Prize was awarded to Dr. Matilde Saura-Múzquiz (Universidad Complutense de Madrid) "for her impressive early career contributions to the field of crystallography of functional materials, in particular those related to the studies of magnetic and non-magnetic complex oxide structures (scheelites, fergusonites, perovskites, pyrochlores,) and studies on nanoparticle morphology, nuclear and magnetic texture and magnetic performance of sintered materials, while combining neutron and X-ray diffraction methods". (<https://ensa.tudelft.nl/laureate-of-the-2023-erwin-felix-lewy-bertaut-prize-is-dr-matilde-saura-muzquiz/>).

The Walter Hülge Prize was awarded to Prof. Toby Perring (ISIS Neutron and Muon Facility) "for his exceptional contributions to neutron science through his work on time-of-flight single crystal spectroscopy". (<https://www.isis.stfc.ac.uk/Pages/Congratulations-Toby-Perring!.aspx>).

Congratulations to all award winners!

Supporters of the ECNS 2023 could choose between four options: platinum, gold, silver and bronze. Eleven neutron facilities, companies and associations contributed to the event:

1. The Institut Laue-Langevin
2. The European Spallation Source
3. AVS Neutron
4. The League of Advanced Neutrons Sources (LENS)
5. Paul Scherrer Institute
6. S-DH Neutron Guides
7. SwissNeutronics
8. Amsterdam Scientific Instruments
9. LND Detectors
10. Mirrotron
11. W-IE-NE-R Power electronics GmbH

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We thank all authors and reviewers for their effort in contributing to these proceedings. The organisers of the conference would like to thank as well all participants for contributing to the success of the event.



Figure 1. The family of neutron scientists met in Garching. Foto: Bernhard Ludewig, FRM II / TUM