

Central and Eastern European NMR Symposium and Bruker Users Meeting 2024

18–19 September 2024, Rijeka, Croatia

<https://ceum2024.hkd.hr/>

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The Central and Eastern European NMR Symposium and Bruker Users Meeting (CEUM) took place from 18 to 19 September 2024 at the Faculty of Biotechnology and Drug Development, University of Rijeka, Croatia. The Conference was organized by Croatian Chemical Society and Bruker.

CEUM 2024 served as a platform for participants to gain insights in recent developments in NMR spectroscopy including diverse applications of state-of-the-art NMR techniques. Participants shared their scientific experience with the gathered NMR enthusiasts resulting in fruitful dialogues and new collaborations. The scope of the conference included topics regarding the theoretical basis of NMR, method development, Bio-NMR, metabolomics, lipidomics, small-molecule structure determination, natural product analysis, drug discovery and NMR characterization of complex mixtures. A section of the conference was dedicated to solid state NMR, including theory and applications.

CEUM 2024 conference gathered about 130 participants from Slovenia, Italy, Austria, Germany, Greece, Romania, Hungary, Bulgaria, Serbia, Poland, Czech, Lithuania, Moldova, Estonia, Spain, Philippines, Australia, Ireland, and France. A number of young researchers, diploma, PhD and postdoctoral students took part at the conference. It started with an inspiring lecture dedicated to In-cell NMR and drug discovery by Lucia Banci followed by lectures covering bioactive natural products (Emmanuel Mikros) and decorin-binding proteins (Adriana Rathner). In the second session Gudo Pintacuda highlighted the impact of new solid state NMR achievements with MAS spinning rates of up to 160 kHz at very high magnetic fields (1.2 GHz). The lectures that followed were all captivating and instructive to students and senior NMR scientists and given by distinguished speakers (Marek J. Potrzebowski, Marko



Figure 1. CEUM 2024 Book of Abstracts.

Trajkovski, Andrea Bodor, Burkhard Luy, Tomislav Jednačak, Ivana Biljan, Pavletta Shestakova, Calin Deleanu, and Niko Radulović.



Figure 2. Participants of CEUM 2024.



Figure 3. Welcome reception.

The best student poster was: *Ligand based NMR spectroscopy for monitoring interactions of small molecules and proteins* by Ivana Sofrenić, Boban Anđelković, Anne Puustinen, Sami Heikkinen, Johannes Heikkinen, Harri Kiljunen, and Harri Heikkinen.

Bruker users meeting was held on September 19th where Bruker representatives talked about new



Figure 4. Poster session.

achievements and developments in magnet design, solid- and liquid-state hardware and software improvements, benchtop NMR, workshop on different topics on NMR - from tips & tricks to spectrum optimization.

Members of the Scientific committee of CEUM 2024 were: Predrag Novak (chair), Jelena Parlov Vuković, Danijel Namjesnik and Iva Habinovec

Members of the Local organizing committee were: Dean Marković, Nikolina Vidović, Milan Mesić, Mirna Petković Didović and Ivana Ratkaj.

We are very grateful to Bruker for sponsoring CEUM 2024.

I would also like to thank all participants who took part at the conference to share nuclear spins in Rijeka on the magnificent Adriatic coast. I strongly believe that CEUM 2024 provided fruitful networking opportunity and fostered exchange of knowledge and experience among students and scientists.

In 2025 we will continue organizing Adriatic NMR Conference, in September 18 – 20, 2025 in a charming Dalmatian city of Vodice, Croatia.

You are all invited to join us!

Predrag Novak