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Special Issue "13th International Bologna Conference on Magnetic Resonance in Porous Media (MRPM13)", 4th – 8th September 2016; Bologna, Italy.

Editorial

This special edition of the online journal Diffusion Fundamentals features the proceedings of a selection of poster presentations made at the thirteenth International Bologna Conference on Magnetic Resonance in Porous Media (MRPM13) as a Groupement Ampere event that was held at the School of Engineering and Architecture of the University of Bologna, Italy.

This was the thirteenth event in a series of outstanding conferences - started at the University of Bologna in 1990 - on the progress of our understanding of structure, molecular dynamics, and fluid transport in porous media, thanks to the use of Magnetic Resonance techniques. After MRPM7 (2004) the community joined the Groupement Ampere as the MRPM Division, so that today the Conferences are Ampere Events. The thirteenth MRPM conference proved once more to be a very stimulating event, very well attended, with 165 delegates, including 53 students, from 22 countries across the world. As in previous meetings, both academia and industry were well represented, and 101 participants became Groupement Ampere members by taking Ampere membership at the Conference. The topics covered a wide range of magnetic resonance methods and applications with a wide variety of new experimental results, theoretical models and apparatus.

Following our tradition, the conference was preceded on October 3rd and 4th by a NMR School. Four tutorial lectures were presented by Bernhard Blümich, Jean-Pierre Korb, Ville-Veikko Telkki, and Lizhi Xiao. The first day of the Conference began with two extended, invited keynote lectures presented by Rainer Kimmich and Bernhard Blümich. The remainder of the meeting comprised 11 further invited and 51 contributed talks and 93 posters covering 11 themes: Connected porous systems and NMR relaxometry; Plants, Soils, and Environmental Sciences; Chemical Engineering and Related Materials; Diffusion and Applications; Advances in Technology and Hardware; Petrophysics and Flow; Advances in Methodology and New Research Fields; Biomedicine and Food; Colloquium on Mobile Magnetic Resonance; Non-destructive Testing and Cultural Heritage; Simulation and Multidimensional Inversion. The MRPM13 proceedings, composed of selected peer reviewed manuscripts, will be published as a special issue of Microporous and Mesoporous Materials (Invited and Oral contributions) and a special issue of the online journal Diffusion Fundamentals.

Bologna MRPM13 closed with the award ceremony of the Giulio Cesare Borgia Prize for Young Researchers (3000 Euros, sponsored by the Dipartimento di Ingegneria Civile, Chimica, Ambientale e dei Materiali of the University of Bologna). The committee, composed of Christoph Arns, Bernhard Blümich, Villiam Bortolotti, Petrik Galvosas, Paola Fantazzini and Frank Stallmach, assigned the prize to Dan Benjamini (National Institutes of Health, USA), with the following motivation: “For his contribution to advancing 2D Laplace NMR to human MRI”. In addition, three best poster presentations were also awarded. The poster committee, composed of Denis Grebenkov, Jonathan Mitchell and Rustem Valiullin, decreed a tie between Mariane B. Andreetta (University of São Paulo, Brazil), Jie Wang (China University of Petroleum-Beijing, China) and Catherine M. Kirkland (Montana State University, USA).

The Organizing Committee is extremely grateful to the meeting sponsors: Niumag; Bruker BioSpin GmbH; MR Solutions; Oxford Instruments; Stelar Srl; Pure Devices GmbH; Jeol SpA; Lab-Tools Ltd; University of Bologna; Department of Civil, Chemical, Environmental, and Materials Engineering and Department of Physics and Astronomy.

During the General Assembly, chaired by Christoph Arns, it was decided that the 14th Bologna MRPM Conference will be held in February 2018 in Gainesville (USA) organized by Sergey Vasenkov and Russ Bowers (University of Florida). It was agreed that Yi-Qiao Song (Chairman), Sabina Haber-Pohlmeier (Vice-Chair), Petrik Galvosas (MRPM12 Chairman), Villiam Bortolotti (MRPM13 Chairman), Sergey Vasenkov and Russ Bowers (MRPM14 Chairpersons), and Paola Fantazzini (ex officio) should serve on the steering committee for the next two years.

Finally, 20 new members of the scientific advisory committee were elected or re-elected to replace those stepping down after 4 or more years of service. In addition, two persons were elected as honorary members.

Guest editors

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