

● *Editorial*

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## THE FOURTH INTERNATIONAL MEETING ON MR APPLICATIONS TO POROUS MEDIA

The Fourth International Meeting on Recent Advances in Magnetic Resonance Applications to Porous Media was held in Trondheim, Norway in September 1997, organized jointly by SINTEF Unimed (Norway), STATOIL, NTNU (Norwegian University of Science and Technology), and the Alma Mater Studiorum, University of Bologna (Italy). The meeting took place in the attractive research center of STATOIL in Trondheim, where the delegates could take advantage of the excellent modern facilities combined with the impressive view of the fjord.

This meeting is the most recent of a series that started with the first meeting organized by the University of Bologna and held in Bologna in 1990. The second took place at the Physics Laboratory of the University of Kent at Canterbury in 1993 and was organized jointly by the nuclear magnetic resonance groups of the University of Kent and Surrey, partners in the Kent and Surrey Collaborative Project in Magnetic Resonance, and the University of Bologna. The third meeting was held in Louvain-la-Neuve in Belgium in 1995 and was organized jointly by the Université Catholique de Louvain and the University of Bologna. The proceedings of the three previous meetings were published in Vol. 9, No. 5 (1991), in Vol. 12, No. 2 (1995), and in Vol. 14, No. 7/8 (1996) of *Magnetic Resonance Imaging*, respectively.

The wide-ranging success of these meetings is a clear demonstration not only of the topicality of the issues dealt with and the level of the work presented, but also of the strongly felt need for interchanges. Not surprisingly, therefore, physicists, engineers, chemists, physicians, and other experts can often be found as co-authors on the same papers. One remarkable facet of these meetings is the wide international representation, as seen from the author's affiliations, and the mix of industrial and academic scientists. So we could even assert that magnetic resonance applications to porous media now represent a sort of a new *interdisciplinary discipline*.

A further characteristic of these meetings consists of encouraging young scientists and giving them a good

opportunity to present the results of their research in a prestigious "showcase." With this aim in mind, the idea of presenting papers as short oral presentations, to be further discussed at the poster sessions, was again followed successfully.

The scientific sessions were arranged with subjects grouped under the following headings: Flow, Diffusion, Macromolecules, Building Materials, Rocks, Food, and Instrumentation. There is clearly a continuing high level of interest in both coherent and incoherent fluid mobilities in porous materials. In particular, the problems associated with transverse flow were discussed by several authors. Another related area that provided a focus of attention was that of surface interactions, wettability, and the mobility and structure of surface layers of adsorbed materials within pores. Both saturated and partially filled systems were of interest as were the general behavior of liquid and solid materials confined within pores. Pore characterisation continues to attract attention and recent developments in spatial measurement now provide NMR techniques that span the micro-, meso-, and macro-porous ranges. New methods were presented to invert relaxation curves, and to extract single time parameters from relaxation curves. Some of the more interesting instrumental developments are taking NMR right out of the laboratory. Well-logging with down-hole instrumentation is now clearly established and the original imaging "MOUSE" device appears to have exciting possibilities for surface studies of a variety of natural and manufactured material products that can be undertaken in situ.

This issue provides a published record of the proceedings, containing the accepted papers (6 invited lectures, 22 contributed major oral presentations, and 31 short oral presentations which were also discussed at poster sessions).

We thank particularly the local organisers and also all those who have been devoted to the success of this and of the preceding meetings. We expect that the fifth meeting will be held in Cambridge and Ulm, Germany, is

under consideration for the sixth. The next meeting is scheduled for the year 2000, which will take us all directly into the new millenium!

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