

Selected invited contributions from the International Conference on Magnetism (Karlsruhe, Germany, 26–31 July 2009)

Guest Editors

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The International Conference on Magnetism 2009 (ICM 2009) was held in Karlsruhe, Germany, from 26 to 31 July 2009. Previous conferences in this series were organized in Edinburgh, UK (1991), Warsaw, Poland (1994), Cairns, Australia (1997), Recife, Brazil (2000), Rome, Italy (2003), and Kyoto, Japan (2006). As with previous ICM conferences, the annual Conference on Strongly Correlated Electron Systems (SCES) was integrated into ICM 2009.

The topics presented at ICM 2009 were strongly correlated electron systems, quantum and classical spin systems, magnetic structures and interactions, magnetization dynamics and micromagnetics, spin-dependent transport, spin electronics, magnetic thin films, particles and nanostructures, soft and hard magnetic materials and their applications, novel materials and device applications, magnetic recording and memories, measuring techniques and instrumentation, as well as interdisciplinary topics. We are grateful to the International Advisory Committee for their help in coordinating an attractive program encompassing practically all aspects of magnetism, both experimentally and theoretically. The Program Committee comprised A Loidl, Germany (Chair), M A Continentino, Brazil, D E Dahlberg, USA, D Givord, France, G Güntherodt, Germany, H Mikeska, Germany, D Kaczorowski, Poland, Ching-Ray Chang, South Korea, I Mertig, Germany, D Vollhardt, Germany, and E F Wassermann, Germany. E F Wassermann was also head of the National Organizing Committee. His help is gratefully acknowledged.

The scientific program started on Monday 27 July 2009 with opening addresses by the Conference Chairman, the Deputy Mayor of Karlsruhe, Ms M Mergen and the Chairman of the Executive Board of Forschungszentrum Karlsruhe, E Umbach. ICM 2009 was attended by the Nobel Laureates P W Anderson, A Fert and P Grünberg who gave plenary talks. A special highlight was the presentation of the Magnetism Award and Néel Medal to S S P Parkin who also presented his newest results in a plenary talk. The IUPAP Young Scientist Award on Magnetism was presented to S O Valenzuela, E Saitoh and T Kimura.

The sessions were held in the Stadthalle Karlsruhe operated by the Karlsruher Messe- und Kongress-GmbH (KMK). We are grateful to Ms M Mäkelburg (KMK) for organizing the conference site impeccably.

The conference was attended by 1552 participants from 48 countries, with approximately 50 per cent from overseas. The program entailed six plenary talks (40 min each), with 16 half-plenary and 41 invited talks (30 min) and 298 contributed talks (15 min). Extended lunch breaks and evenings were devoted to poster sessions, with a total of 1632 posters presented.

All submitted papers were reviewed in order to meet the standards of *Journal of Physics: Condensed Matter* and *Journal of Physics: Conference Series*. The referees made every effort to ensure that the manuscripts submitted for publication in the proceedings reached a high standard. The tremendous work in

organizing the paper classification and refereeing procedures was carried out by the Publication Committee which was headed by J Wosnitza, and comprised, in addition, Th Pruschke, M Richter and L Schultz. We also thank G Douglas, IOP Publishing, for his support with the preparation of these proceedings.

We gratefully acknowledge the help of L Behrens, E Maass and B Schelske in preparing the conference. The conference would not have been possible without G Goll (conference secretary) and C Sürgers (finances). I thank them for their help. Thanks also go to the many students in blue t-shirts who helped to manage the conference.

We are grateful for the financial support of Universität Karlsruhe (TH) and Forschungszentrum Karlsruhe (both institutions merged to form the Karlsruhe Institute of Technology (KIT) as of 1 October 2009), the International Union of Pure and Applied Physics (IUPAP), the City of Karlsruhe, Deutsche Forschungsgemeinschaft (German National Science Foundation), and the European Commission through COST MPNS Action P16.

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Conference Chairman of ICM 2009

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