

Summary of the conference **Physics of Magnetism'05**

The European Conference *PHYSICS OF MAGNETISM'05* was held on June 24-27, 2005 in Poznań (Poland) in the conference facilities of the Adam Mickiewicz University. It was the eleventh conference of the series organized jointly by the Institute of Molecular Physics of the Polish Academy of Sciences and the Institute of Physics of the Adam Mickiewicz University in Poznań every three years since 1975.

The main objective of the Conference has been to provide an international forum for the presentation and discussion of novel scientific ideas and experimental results, in a field of broadly understood magnetic phenomena and new magnetic materials, with a special emphasis on the following subjects: • *correlated electrons and high temperature superconductors*; • *heavy fermions, fluctuating valence and Kondo systems*; • *novel metal oxides and anomalous magnetoresistive materials*; • *magnetic multilayers, surfaces, and nanostructures*; • *quantum tunneling and magnetism in nanoscale*; • *low dimensional quantum magnets*; • *electronic structure*.

The Conference has brought together scientists and technologists from the Western, Central, and Eastern European countries involved in research and application of new magnetic materials and high temperature superconductors.

The program of the Conference consisted of 28 invited talks, presented by distinguished physicists from Europe, Japan and USA (G.Bayreuther, S.Bluegel, R.B.Bulka, C.Di Castro B.Dabrowski, P.Dederichs, T.Dietl, K.Doerr, H.Ebert, A.Ehresmann, A.Fert, B. Gallagher, P.Horsch, R.K.Kremer, S.Maekawa, K.Maki, A.Maziewski, W. Metzner, M.Miglierini, D.Poilblanc, H.Puszkarski, J. Spalek, F.Steglich, J.Sznajd, P.Wachter, R.Wiesendanger, S.Yuasa. Besides, about 200 contributions were presented in either oral or poster form.