

Preface

A national scientific network “**New materials for magnetoelectronics – MAG-EL-MAT**”, founded in the beginning of 2003, gathers 52 research groups including over 300 scientists. Many of them are concerned with the electric and magnetic properties of solids, with particular interest in various applications of the spin degrees of freedom. The general theoretical and experimental goal is to investigate the electronic and magnetic properties of nanoscopic materials. Design of new materials and detailed recognition of their properties are the basis for development of new magnetoelectronic devices.

Since 2003 Będlewo has become a traditional place of annual members meetings of **MAG-EL-MAT** network. Its convenient and attractive location of about 40 km from Poznań, amidst lakes and forests, excellent accommodation and very good conference facilities, have been appreciated by our regular visitors.

The first **MAG-EL-MAT** Members Meeting, held in Będlewo between 26 and 28 October 2003, cumulated 43 participants from 16 Polish institutions, who appointed the Coordinating Committee, approved the main programme of the Network and presented briefly the institutions they represented, their main research areas and fields of possible collaboration.

The second Meeting on April 13-16, 2004 gathered about 70 members and was divided into 11 short sessions. The participants listened to 9 invited lectures and 17 oral contributions. Additionally, 9 posters were presented and 7 special talks given on the achievements of various **MAG-EL-MAT** institutions, Centres of Excellence and on the opportunities available within the framework of the EU programmes.

At the third Meeting on May 2-6, 2005 whose programme was covered in 7 scientific sessions, the participants were 102 members and guests. The plenary lecture was given by J. Spalek, followed by 11 invited lectures and 21 oral contributions, and presentation of 38 posters. For the first time the organizers decided to publish the papers presented in a regular journal. 50 papers after referee procedure are currently in print in the Materials Science Poland. The issue is expected to appear in the middle of this year.

The fourth Meeting will take place on May 3-6, 2006 again in Będlewo in the form of a series of short seminars gathered in four special sessions and a plenary session. This time the plenary speakers are J. Kossut and J. Dubowik. The topics of the fourth **MAG-EL-MAT** meeting are biomagnetics and medical physics, strongly correlated electrons in spintronics, modern electronics and nanotechnology. The theoretical session will be devoted to the new ideas for magnetoelectronics. We plan to publish all presented papers again in the Materials Science Poland, as a second volume of the **MAG-EL-MAT** meeting proceedings, with help of our Guest Editors S. Lipiński and T. Luciński.

I am sure that the meeting and the subjects considered will raise interest among the participants and trigger off further contacts, new forms of scientific collaboration and joint research projects. I wish all the **MAG-EL-MAT** members, participants of our meeting many fruitful discussions and much satisfaction as well as a pleasant and memorable stay in Będlewo and its environs.

April, 2006

Bogdan Idzikowski