

INTRODUCTION

This volume presents Proceedings of the Conference and Autumn School *PDEs, Submanifolds and Affine Differential Geometry*, organized within the conference program of the Banach Center at the Mathematical Conference Center, Będlewo, Poland, in cooperation with the Komitet Matematyki PAN, held September 23–27, 2003.

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The contributions in this volume are based on conference contributions in the form of lectures or posters, some of them reflect the influence of discussions and the exchange of ideas during the conference. Deadline for contributions to the proceedings was February 20th, 2004. Besides very few surveys all papers are original research papers in final form, and no version of such contributions will be published elsewhere. All papers have been refereed according to high international standards of research journals.

A particular interest of the meeting was the interplay of geometry and PDEs. It is well known that many geometric problems in analytic formulation lead to important classes of PDEs. Naturally, since all such equations arise in geometric context, geometric methods play a crucial role in their investigation. The kernel of our conference was devoted to a special topic and organized in the form of an autumn school: “Variational problems and higher order PDEs for affine hypersurfaces”, with lecture series of A. M. Li, H. Li, B. Opozda, and L. Vrancken. Here we present two survey papers of A. M. Li and H. Li, which are extensions of their lecture notes. For the introduction to affine hypersurface theory we refer to the monographs cited in both surveys.

Berlin, January 24, 2005

The Editors