NONLOCAL ELLIPTIC AND PARABOLIC PROBLEMS BANACH CENTER PUBLICATIONS, VOLUME 66 INSTITUTE OF MATHEMATICS POLISH ACADEMY OF SCIENCES WARSZAWA 2004

PREFACE

The conference "Nonlocal Elliptic and Parabolic Problems" was held at the Banach Center, Będlewo, from September 12 to September 15, 2003.

There were forty six participants who presented twenty seven lectures and communications. The subjects included:

- particular kinetic equations,
- mean field models in astrophysics (for the evolution of self-interacting particles) and biology (for chemotaxis),
- hydrodynamical models in semiconductor and electrolytes theory,
- phenomenological models for thermistors, food sterilizators and other devices,
- instantons in quantum physics, etc.

Twenty four papers closely connected with the talks presented at the conference have been accepted for publication in this volume. We think that these works, often the results of joint studies, give a flavour of the state of art in "nonlocal problems".

We take this opportunity to thank the participants and contributors to this volume for scholarly and warm atmosphere during those four days of conference, and interesting discussions, and the referees for friendly criticism.

The conference was generously supported by the Banach Center and Polish Ministry of Science (KBN – MNI). The Banach Center staff took care of smooth organization of the event. We also thank the European Network HYKE ("Hyperbolic and Kinetic Equations").

Piotr Biler, Grzegorz Karch and Tadeusz Nadzieja