

## PREFACE

We present the outgrowth of the lectures delivered at the conference *Nonlocal and abstract parabolic equations and their applications*, held at Będlewo in 2007. This meeting was devoted to a rapidly developing area of abstract and nonlocal parabolic problems. There is a range of phenomena whose models employ such equations, possibly in an implicit way. The contributions to this volume are concentrated around the following specific topics:

- The motion of an incompressible fluid, the nonlocal character of equations is implied by the constraint  $\operatorname{div} u = 0$ ;
- Equations governing the singular weighted mean curvature flow;
- Recent development of broadly understood reaction-diffusion systems and their applications; the link between them and the free boundary problems;
- Free boundary problems with the Gibbs–Thomson law.

We wish to thank all the participants of our meeting and all the authors for their contributions and participation.

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