Introduction

This special volume is devoted to the Proceedings of the Third Italian Number Theory Meeting, held at the Centro di Ricerca Matematica (CRM) "Ennio De Giorgi" in Pisa on September 21-24 2015, with the contribution of the CRM itself, of the INdAM Research Group GNSAGA and of the University of Pisa. The Meeting was devoted to presenting some recent results of Italian number theorists and their collaborators and to providing a description of the current areas of research in number theory in Italian universities.

The Meeting consisted of 14 plenary lectures by leading researchers in the area and 26 short talks mainly by young PhD students or Post-Docs in two parallel afternoon sessions. The complete list of participants, speakers and further information can be obtained from the web site:

http://www.crm.sns.it/event/342/.

Due to the success of the Meeting and the desire to make the results presented there accessible to a broader audience, the organizing committee decided to ask the speakers to write expanded notes or new results on the topic they addressed. These papers are collected in the present volume and range from analytic to algebraic number theory, diophantine approximation and arithmetic geometry showing the richness of modern number theory and the valid contribution of Italian number theorists to the various topics.

We wish to acknowledge the Editor-in-Chief Prof. Adriano Tomassini and the Editorial Board of the Rivista di Matematica della Università di Parma for accepting to publish the Proceedings of the Meeting. We are particularly grateful to Alessandro Zaccagnini for his help and support during the whole editorial process. Special thanks are due to Maria Tiziana Mauro for the preparation of this volume.

We wish to thank again the authors and all the speakers for their interesting papers and talks and all the participants for their meaningful and important contribution to the Meeting. It is also a pleasure to thank here the Director Prof. Stefano Marmi and the entire staff of the CRM (Antonella Gregorace, Caterina D'Elia, Eleonora Carlesi, Silvia Quaglieri) for their invaluable help which was essential for the success of the Meeting.

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