

MATHEMATISCHES FORSCHUNGSINSTITUT OBERWOLFACH

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Analytic Number Theory

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ABSTRACT. Analytic number theory has flourished over the past few years, and this workshop brought together world leaders and young talent to discuss developments in various branches of the subject.

Mathematics Subject Classification (2010): 11xx.

Introduction by the Organisers

Analytic number theory is on the roll for quite some time now, with spectacular discoveries year after year. Thus, the timing was perfect for an exciting week, but the overload of talent and the vast activities in various subbranches of the field made it challenging to select an appropriate mix of participants. However, we feel that we could not have done better: during the workshop, we experienced a typical Oberwolfach atmosphere, open, collaborative and productive.

We tried to keep the schedule moderate, with ample time for work and discussion after lunch and in the evening. The programme included a round table discussion on recent advances with the circle method on Tuesday evening, and a problem session on Thursday evening. The problems posed are included at the end of this report.

Many important results have been announced during the week. Rather than making an attempt to highlight the truly outstanding contributions, we let the collection of abstracts speak for itself.

Finally, it is our great pleasure to record the warm-hearted hospitality and excellent support by the local staff during a great event.

Acknowledgement: The MFO and the workshop organizers would like to thank the National Science Foundation for supporting the participation of junior researchers in the workshop by the grant DMS-1049268, “US Junior Oberwolfach Fellows”.

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