

MATHEMATISCHES FORSCHUNGSINSTITUT OBERWOLFACH

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Computability Theory

Organised by

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February 5th – February 11th, 2012

ABSTRACT. Computability is one of the fundamental notions of mathematics, trying to capture the effective content of mathematics. Starting from Gödel's Incompleteness Theorem, it has now blossomed into a rich area with strong connections with other areas of mathematical logic as well as algebra and theoretical computer science.

Mathematics Subject Classification (2000): 03Dxx, 68xx.

Introduction by the Organisers

The workshop *Computability Theory*, organized by Klaus Ambos-Spies and Wolfgang Merkle (Heidelberg), Steffen Lempp (Madison) and Rodney G. Downey (Wellington) was held February 5th–February 11th, 2012. This meeting was well attended, with 53 participants covering a broad geographic representation from five continents and a nice blend of researchers with various backgrounds in classical degree theory as well as algorithmic randomness, computable model theory and reverse mathematics, reaching into theoretical computer science, model theory and algebra, and proof theory, respectively. Several of the talks announced breakthroughs on long-standing open problems; others provided a great source of important open problems that will surely drive research for several years to come.

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