

Oberwolfach Workshop 1912: *Contemporary Coding Theory*

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Abstract

Ever since its conception in the late 1940's, the theory of error-correcting codes has been a central focus of mathematicians which were interested to apply discrete mathematics to computer science and electrical engineering. Coding theory lies naturally at the intersection of a large number of disciplines in pure and applied mathematics: algebra, number theory, probability, statistics, communication theory, discrete mathematics, combinatorics, complexity theory, and statistical physics are just but a few areas that have brought about very interesting applications in coding theory in recent years. The multitude of methods and means to construct and analyze codes and their properties suggests that a workshop with the explicit aim of bringing together researchers in different sub-fields of mathematical coding theory is necessary for cross-fertilization of ideas and global advancement of the field. This is precisely the goal of this workshop.

AMS subject classifications. 11T71, 14G50, 68P30, 94B27.

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