

Contents

Preface	vii
The Linde Hall Inaugural Math Symposium at Caltech	ix
The finite simple groups and their classification MICHAEL ASCHBACHER	1
The Birch and Swinnerton-Dyer Conjecture: A brief survey ASHAY A. BURUNGALÉ, CHRISTOPHER SKINNER, and YE TIAN	11
Bounding ramification by covers and curves HÉLÈNE ESNAULT and VASUDEVAN SRINIVAS	31
The Lieb–Thirring inequalities: Recent results and open problems RUPERT L. FRANK	45
Some topological properties of surface bundles URSULA HAMENSTÄDT	87
Some recent advances on Duke’s equidistribution theorems PHILIPPE MICHEL	107
Gap and Type problems in Fourier analysis A. POLTORATSKI	133
Quantitative bounds for critically bounded solutions to the Navier-Stokes equations TERENCE TAO	149
The Continuum Hypothesis W. HUGH WOODIN	195