

Contents

Hilbert's Problems	1
Hilbert's 23 Problems	9
The Way We Were	11
Guido Castelnuovo	21
Federigo Enriques	22
Francesco Severi	22
Verlaine and Poincaré	25
Bertrand Russell	27
Godfrey H. Hardy	37
Hardy: From <i>A Mathematician's Apology</i>	41
Emmy Noether	43
Carciopholus Romanus	53
Paul Adrien Maurice Dirac	55
Quantum Mechanics	57
The Foundations of Quantum Field Theory	58
Electron Theory	59
The Method of Mathematical Beauty	60
A Monosyllabic Interview	62
The Theoretical Intelligence and the Practical Vision of John von Neumann	63

Kurt Gödel	69
Hommage À Gödel	77
Robert Musil	79
The Country that Went to Ruin Because of a Linguistic Gap	79
Precision and Soul	81
Too Intelligent To Be a Poet	83
Integrals To Grow Lean Again	87
The Life, Death and Miracles of Alan Mathison Turing	91
“Who Is” A. M. Turing	94
Renato Caccioppoli	97
Bruno de Finetti	109
Works by Bruno de Finetti Cited	113
A Committed Mathematician	115
Andrey Nikolaevich Kolmogorov	117
Bourbaki	123
Books Published by Bourbaki	127
The Generations	128
The “Real” Bourbaki	128
The Founding Fathers	128
Writing and Mathematics in the Work of Raymond Queneau	131
From Exercises in Style by Raymond Queneau	135
Original Version	135
Numerical Version	135
Geometrical Version	135
Set Theory Version	136
John F. Nash Jr.	137
Nash’s Life	137
The Myth of Icarus	139
Game Theory	142
Ennio De Giorgi	147
Perimeter Theory and Hilbert’s 19th Problem	147
Minimal Surfaces	149
G-Convergence	150

Equations of Evolution and Problems of Free Discontinuity	151
Foundations of Mathematics	151
Social Commitment and Relations with Other Italian Mathematicians ...	152
A Personal Recollection	153
Laurent Schwartz	157
“Who Is” Laurent Schwartz	164
René Thom	165
J.L. Borges, The Dream (El sueño)	169
Alexander Grothendieck: Enthusiasm and Creativity	171
Bibliography	180
Gian-Carlo Rota	181
Stephen Smale	191
Michael F. Atiyah	197
The Age of Unification	197
From Algebraic Geometry to K-Theory	198
The Index Theorem	200
Geometry and Physics	204
Conclusion	207
Vladimir Igorevich Arnold	209
Enrico Bombieri	213
Martin Gardner	217
Solution	220
Le Corbusier’s Door of Miracles	221
F. William Lawvere	223
Category Theory	228
Andrew Wiles	231
Interview with Andrew Wiles (October 2004)	233
Mathematical Prizes	237
The Fields Medal	237
The Abel Prize	238