

Contents

Preface	vii
List of speakers	xi
Plenary Talks from String-Math 2014	
All genus mirror symmetry for toric Calabi-Yau 3-orbifolds BOHAN FANG, CHIU-CHU MELISSA LIU, and ZHENGYU ZONG	1
Symmetries and defects in three-dimensional topological field theory JÜRGEN FUCHS and CHRISTOPH SCHWEIGERT	21
Quantum curves and topological recursion PAUL NORBURY	41
Contributed Talks from String-Math 2014	
A few recent developments in 2d (2,2) and (0,2) theories ERIC SHARPE	67
Codimension two defects and the Springer correspondence ASWIN BALASUBRAMANIAN	89
Higher spin AdS ₃ holography and superstring theory THOMAS CREUTZIG, YASUAKI HIKIDA, and PETER B. RØNNE	99
Humbert surfaces and the moduli of lattice polarized K3 surfaces CHARLES F. DORAN, ANDREW HARDER, HOSSEIN MOVASATI, and URSULA WHITCHER	109
Superconformal field theories and cyclic homology RICHARD EAGER	141
Differential K-characters and D-branes FABIO FERRARI RUFFINO	151
Integral pentagon relations for 3d superconformal indices ILMAR GAHRAMANOV and HJALMAR ROSENGREN	167
Wilson surfaces in 6D (2,0) theory and AdS ₇ /CFT ₆ HIRONORI MORI and SATOSHI YAMAGUCHI	177
Motivic zeta functions of the quartic and its mirror dual JOHANNES NICAISE, D. PETER OVERHOLSER, and HELGE RUDDAT	189

Semistability and instability in products and applications ALEXANDER H. W. SCHMITT	201
Local and relative BPS state counts for del Pezzo surfaces MICHEL VAN GARREL	215
Resurgence and topological strings M. VONK	221
Talks from Satellite Events	
Chern-Simons splitting of 2+1D gauge theories TUNA YILDIRIM	233
A strange family of Calabi-Yau 3-folds HOWARD J. NUER and PATRICK DEVLIN	245
Calabi-Yau threefolds fibred by Kummer surfaces associated to products of elliptic curves CHARLES F. DORAN, ANDREW HARDER, ANDREY Y. NOVOSELTSEV, and ALAN THOMPSON	263
Weighted Hurwitz numbers and hypergeometric τ -functions: an overview J. HARNAD	289
Calabi-Yau threefolds with infinite fundamental group ATSUSHI KANAZAWA	335
Logarithmic invariants of links JUN MURAKAMI	343
Positivity of Hochster theta over \mathbb{C} MOHAMMAD REZA RAHMATI	353
Cohomological Donaldson-Thomas theory BALÁZS SZENDRŐI	363