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Nota di contenuto	1 Introduction, by Louis Funar and Athanase Papadopoulos -- 2 Primes, Knots and Po, by Barry Mazur -- 3 A short history of open manifolds related to complex analytic coordinates, by Dennis Sullivan -- 4 Universal Spin Teichmüller Theory, I: The action of $P(SL(2,\mathbb{Z}))$ on T ess+, by Robert C. Penner -- 5 Universal Spin Teichmüller Theory, II: Finite presentation of $P(SL(2,\mathbb{Z}))$, by Robert C. Penner -- 6 Geometry of Fermat's sum of squares, by Greg McShane and Vlad Sergiescu -- 7 Ends and compactifications in geometric topology, by Ken'ichi Ohshika -- 8 Axiomatic phylogenetics, by Vladimir Turaev -- 9 About the diffeomorphisms of the 3-sphere and a famous theorem of Cerf (4 = 0), by François Laudenbach -- 10 Holomorphic tensors on Vaisman manifolds, by Liviu Ornea and Misha Verbitsky -- 11 On the topology of monotone Lagrangians of high dimension, by Mihai Damian -- 12 Kervaire Problems in Stable Homotopy Theory, by Petr M. Akhmet'ev -- 13 Lifting generic maps to embeddings, The double point obstruction, by Sergey A. Melikhov -- 14 "Barcodes" for continuous maps and a brief introduction to Alternative Morse Theory, by Dan Burghelea -- 15 A note on the quasi simple filtration of finite groups, by Francesco

Russo -- 16 Lifting maps between graphs to embeddings, by Alexey Gorelov -- 17 A note on the discriminant loci of a hypersurface of bi-degree (m, n), by Susumu Tanabé -- 18 Welded graphs, Wirtinger groups and punctured spheres, by Benjamin Audoux, Jean-Baptiste Meilhan and Akira Yasuhara -- 19 On geometric representation of L-homology classes, by Friedrich Hegenbarth and Dušan D. Repovš -- 20 On elementary invariants of genus one knots and Seifert surfaces, by Christine Lescop -- 21 On a family of hyperbolic Brunnian links and their volumes, by Dušan D. Repovš and Andrei Yu. Vesnin -- 22 $SL(2, \mathbb{Z})$, les tresses à trois brins, le tore modulaire et $Aut+(F_2)$, (d'après Emil Artin et Jacob Nielsen), by Alexis Marin -- 23 "All the resources of pure mathematics": Mathematical physics and mathematics as physics, by Arkady Plotnitsky -- 24 The case for absolute geometry, by Victor Pambuccian -- 25 The Reconstruction of Theaetetus' Theory of Ratios of Magnitudes, by Stelios Negrepontis and Dimitrios Protopapas -- 26 Notice de travaux, by Valentin Poénaru -- 27 Mathematical Adventures: A letter to Barry Mazur, by Valentin Poénaru -- 28 Adventures in physics, by Valentin Poénaru -- 29 Dimitru Poénaru, my father, by Valentin Poénaru -- 30 Father Andrei, by Valentin Poénaru -- 31 The magic summer of 1964, by Valentin Poénaru -- 32 Po, a mathematician between humanism and science, Corrado Tanasi and Franco Marchese.

Sommario/riassunto

This book consists of a collection of articles dedicated to Valentin Poénaru, on topology and geometry in a broad sense. Poénaru is one of the leading mathematicians whose work had an essential impact on the development of topology in France over the last forty years of the twentieth century. The special topics addressed in this volume include hyperbolic geometry, 3-manifolds, complex and symplectic geometry, differential topology, combinatorial group theory, piecewise-linear topology, algebraic geometry, knots and links, homotopy theory, braid groups, phylogenetics, the history of geometry, and the philosophy of mathematics. This collection of articles, written by well-known researchers, provides a lively insight into a number of current research topics in geometry and topology. .
