Record Nr. UNISA996466670203316 Autore Braverman Alexander **Titolo** Geometric Representation Theory and Gauge Theory [[electronic resource]]: Cetraro, Italy 2018 / / by Alexander Braverman, Michael Finkelberg, Andrei Negut, Alexei Oblomkov; edited by Ugo Bruzzo. Antonella Grassi, Francesco Sala Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 **ISBN** 3-030-26856-X Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (137 pages): illustrations Collana C.I.M.E. Foundation Subseries;; 2248 Disciplina 516.35 Soggetti Algebraic geometry **Physics** Category theory (Mathematics) Homological algebra Elementary particles (Physics) Quantum field theory Algebraic Geometry Mathematical Methods in Physics Category Theory, Homological Algebra Elementary Particles, Quantum Field Theory Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. This book offers a review of the vibrant areas of geometric Sommario/riassunto representation theory and gauge theory, which are characterized by a merging of traditional techniques in representation theory with the use of powerful tools from algebraic geometry, and with strong inputs from

physics. The notes are based on lectures delivered at the CIME school "Geometric Representation Theory and Gauge Theory" held in Cetraro,

Alexander Braverman and Michael Finkelberg, Andrei Negut, and Alexei Oblomkov, respectively. Braverman and Finkelberg's notes review the

Italy, in June 2018. They comprise three contributions, due to

mathematical theory of the Coulomb branch of 3D N=4 quantum gauge theories. The purpose of Negut's notes is to study moduli spaces of sheaves on a surface, as well as Hecke correspondences between them. Oblomkov's notes concern matrix factorizations and knot homology. This book will appeal to both mathematicians and theoretical physicists and will be a source of inspiration for PhD students and researchers.