1. Record Nr. UNINA9910741171903321 Autore Sandor Biro Tamas Titolo Variational principles in physics : from classical to quantum realm // Tamas Sandor Biro Pubbl/distr/stampa Cham, Switzerland: ,: Springer Nature Switzerland AG, , [2023] ©2023 **ISBN** 9783031278761 9783031278754 Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (121 pages) SpringerBriefs in Physics, , 2191-5431 Collana Disciplina 530.15 Soggetti Variational principles Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Mechanics: geometry of orbits -- Gravity: the optimal Nota di contenuto curvature -- Electrodynamics: forces, fields, waves -- Quantum mechanics: the most classical non-classical theory. Sommario/riassunto This book is an English translation from a Hungarian book designed for graduate and postgraduate students about the use of variational principles in theoretical physics. Unlike many academic textbooks, it dashes across several lecture disciplines taught in physics courses. It emphasizes and demonstrates the use of the variational technique and philosophy behind the basic laws in mechanics, relativity theory. electromagnetism, and quantum mechanics. The book is meant for advanced students and young researchers in theoretical physics but, also, more experienced researchers can benefit from its reading.