Record Nr. UNINA9910257392703321 Precision Physics of Simple Atomic Systems [[electronic resource] /] / **Titolo** edited by Savely G. Karshenboim, Valery B. Smirnov Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2003 **ISBN** 3-540-45059-9 Edizione [1st ed. 2003.] 1 online resource (XIII, 217 p.) Descrizione fisica Collana Lecture Notes in Physics, , 0075-8450 ; ; 627 Disciplina 539/.7 Soggetti Atoms **Physics** Chemistry, Physical and theoretical Nuclear physics Quantum optics Atomic, Molecular, Optical and Plasma Physics Physical Chemistry Particle and Nuclear Physics Mathematical Methods in Physics **Quantum Optics** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto The Hydrogen Atom -- Muonic and Exotic Atoms and Nuclear Effects -- Hvdrogen-Like Ions -- Testing Quantum Electrodynamics --Precision Measurements and Fundamental Constants. Sommario/riassunto Precision physics of simple atoms is a multidisciplinary area, involving atomic, laser, nuclear and particle physics and also metrology. This book will thus be of interest to a broad community of physicists and metrologists. Furthermore, since hydrogen (and other hydrogen-like atoms) is a model system for applying quantum theory, the book contains valuable material for students. The chapters provide in-depth reviews covering precision measurements, accurate calculations, fundamental constants, frequency standards, and tests of fundamental theory. The latest progress in each of these areas is also described for

the specialist. The topics selected for this book are largely

complementary to those of the earlier related volume, LNP 570.