Record Nr. UNINA9910149709903321 Laser spectroscopy: proceedings of the XXII International Conference / **Titolo** / XII International Conference on Laser Spectroscopy (ICOLS2015) Singapore, 28 June-3July 2015; editor, Kai Dieckmann (Centre for Quantum Technologies and National University of Singapore, Singapore) Pubbl/distr/stampa Hackensack, New Jersey:,: World Scientific,, [2017] ©2017 **ISBN** 981-320-061-8 1 online resource (110 pages): color illustrations Descrizione fisica 535.8/4 Disciplina Soggetti Laser spectroscopy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Quantum walks with neutral atoms: quantum interference effects of Nota di contenuto one and two particles / Andrea Alberti -- Muonic atoms and the nuclear structure / Aldo Antognini for the CREMA collaboration --Doppler-broadening gas thermometry at 1.39 [micrometers]: towards a new spectroscopic determination of the Boltzmann constant / Livio Gianfrani -- Antiferromagnetism with ultracold atoms / Randall G. Hulet -- Optical clocks with trapped ions: establishing the 10¹ uncertainty range / Ekkehard Peik -- Precision measurement of the Newtonian gravitational constant by atom interferometry / Gabriele Rosi -- Optical sideband cooling of ions in a Penning trap / Richard C. Thompson -- Bose-Einstein condensation of photons versus Lasing and Hanbury Brown-Twiss measurements with a condensate of light / Martin Weitz. Sommario/riassunto "ICOLS features the latest developments in the area of laser spectroscopy and related topics in atomic, molecular, and optical physics and other disciplines. The talks covered a broad range of exciting physics, such as precision tests of fundamental symmetries with atoms and molecules, atomic clocks, quantum many-body physics

> with ultra-cold atoms, atom interferometry, quantum information science with photons and ions, quantum optics, and ultra-fast atomic and molecular dynamics. The conference program comprised 14

sessions with 9 keynote addresses, 25 invited talks, and 3 hot topic talks. The speakers came from 15 different countries. Ever since the ICOLS conference series originated in 1973, its proceedings have been highly valued by many for capturing important developments in the field and offering the room to represent various aspects of specific research topics. The present volume contains some of the invited talks delivered at the conference"--