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Nota di contenuto	Real-time observation of quantum wavepackets of molecules with a-few-pulse attosecond pulse train.-Laser-induced alignment dynamics beyond the rigid-rotor approximation -- Light-induced electron dynamics in semiconductor from femtosecond to attosecond regime -- Elucidating the origins of multimode vibrational coherences induced by intense laser fields -- Warm dense matter produced by high-intensity short-pulsed lasers -- Femtosecond laser filamentation in a combustion flame -- Harmonic generation in air by intense femtosecond pulses -- Mechanisms of the high-order harmonic generation from solids -- Coherent control of symmetry breaking and restoration with attosecond precision: From atoms to molecules -- Studies of molecular dynamics in sub-fs scale using intense XUV pulses

	-- Harmonic generation in strongly-driven quantum rotors -- How to take full profit of a high repetition rate petawatt laser -- Atoms and molecules in intense laser fields (Theory) -- Optimal control of molecular dynamics by intense non-resonant laser pulses with applications to time-resolved X-ray imaging -- Ab initio strong field physics -- Above-threshold dissociation of molecules.
Sommario/riassunto	This 14th volume in the PUILS series presents up-to-date reviews of advances in Ultrafast Intense Laser Science, an interdisciplinary research field spanning atomic and molecular physics, molecular science, and optical science, which has been stimulated by the rapid developments in ultrafast laser technologies. Each chapter begins with an overview of the topics to be discussed, so that researchers unfamiliar to the subfield, as well as graduate students, can grasp the importance and appeal of the respective subject matter; this is followed by reports on cutting-edge discoveries. This volume covers a broad range of topics from this interdisciplinary field, e.g. atoms and molecules interacting in intense laser fields, laser-induced filamentation, high-order harmonics generation, and high-intensity lasers and their applications. .