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Note generali	"Doctoral thesis accepted by the University of Heidelberg, Germany."
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Theoretical Model -- Nuclear Coherent Population Transfer with X-Ray Laser Pulses -- Coherent Storage and Phase Modulation of Single Hard-X-Ray Photons -- Coherence Enhanced Optical Determination of the ²²⁹ Th Isomeric Transition.
Sommario/riassunto	Novel coherent light sources such as x-ray free-electron lasers open exciting prospects for the interaction of light with nuclei. The thesis "Coherent Control of Nuclei and X-rays" covers this still-developing field and proposes, in a daring attempt to revolutionize nuclear physics, three innovative schemes for taming nuclei using coherent effects. The theoretical explorations, which address control of nuclear quantum states, a nuclear memory for single photons in future photonic circuits, and optimized concepts for a nuclear clock, make use of new approaches at the borderline between nuclear physics and quantum dynamics. The result is a well written work, impressive in its stimulating style and promising ideas.

