

1. Record Nr.	UNINA9910300410603321
Titolo	Ultrafast Magnetism I : Proceedings of the International Conference UMC 2013 Strasbourg, France, October 28th - November 1st, 2013 // edited by Jean-Yves Bigot, Wolfgang Hübner, Theo Rasing, Roy Chantrell
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-07743-0
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (356 p.)
Collana	Springer Proceedings in Physics, , 1867-4941 ; ; 159
Disciplina	538
Soggetti	Magnetism Nanotechnology Condensed matter Surfaces (Physics) Electrodynamics Nanoscience Condensed Matter Physics Surface and Interface and Thin Film Classical Electrodynamics Nanophysics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Ultrafast Magnetism Dynamics in Semiconductors -- Ultrafast Magnetism Dynamics in Metals -- Spin Waves Dynamics -- Theory of Spin Dynamics -- Ultrafast Coherent Magnetism -- Ultrafast Magnetism Control -- Spin Photo-Emission Dynamics -- XRay and Far UF Spin Dynamics -- Terahertz Spin Dynamics.
Sommario/riassunto	This volume on Ultrafast Magnetism is a collection of articles presented at the international "Ultrafast Magnetization Conference" held at the Congress Center in Strasbourg, France, from October 28th to November 1st, 2013. This first conference, which is intended to be held every two years, received a wonderful attendance and gathered scientists from 27 countries in the field of Femtomagnetism,

encompassing many theoretical and experimental research subjects related to the spins dynamics in bulk or nanostructured materials. The participants appreciated this unique opportunity for discussing new ideas and debating on various physical interpretations of the reported phenomena. The format of a single session with many oral contributions as well as extensive time for poster presentations allowed researchers to have a detailed overview of the field. Importantly, one could sense that, in addition to studying fundamental magnetic phenomena, ultrafast magnetism has entered in a phase where applied physics and engineering are playing an important role. Several devices are being proposed with exciting R&D perspectives in the near future, in particular for magnetic recording, time resolved magnetic imaging and spin polarized transport, therefore establishing connections between various aspects of modern magnetism. Simultaneously, the diversity of techniques and experimental configurations has flourished during the past years, employing in particular Xrays, visible, infra-red and terahertz radiations. It was also obvious that an important effort is being made for tracking the dynamics of spins and magnetic domains at the nanometer scale, opening the pathway to exciting future developments. The concerted efforts between theoretical and experimental approaches for explaining the dynamical behaviors of angular momentum and energy levels, on different classes of magnetic materials, are worth pointing out. Finally it was unanimously recognized that the quality of the scientific oral and poster presentations contributed to bring the conference to a very high international standard.
