

1. Record Nr.	UNINA9910424636703321
Autore	Okuno Takaya
Titolo	Magnetic dynamics in antiferromagnetically-coupled ferrimagnets : the role of angular momentum / / Takaya Okuno
Pubbl/distr/stampa	Gateway East, Singapore : , : Springer, , [2020] Â©2020
ISBN	981-15-9176-8
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XIII, 75 p. 36 illus., 32 illus. in color.)
Collana	Springer theses
Disciplina	621.3
Soggetti	Spintronics - Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Introduction -- 2. Spin-transfer torques for domain wall motion in antiferromagnetically-coupled ferrimagnets -- 3. Gilbert damping parameter of ferrimagnets probed by domain wall motion -- 4. Gilbert damping parameter of ferrimagnets probed by magnetic resonance -- 5. Conclusion.
Sommario/riassunto	This book presents the theoretical and experimental investigations on antiferromagnetically coupled ferrimagnets and reveals new aspects of ferrimagnetic dynamics in terms of the role of angular momentum. The purpose of this book is to show readers that antiferromagnets/ferrimagnets are useful in spintronic devices in that (1) The non-adiabatic spin-transfer torque in antiferromagnets acts as a staggered magnetic field, which can drive the magnetic domain walls, and (2) The Gilbert damping parameter , the energy -dissipation rate associated with the magnetic dynamics of ferrimagnets, is insensitive to temperature in contrast to the conventional understanding that the effective of ferrimagnets diverges at the angular momentum compensation temperature. This book provides readers with a scientific platform of ferrimagnetic dynamics, which serves as a useful basis for realizing the next -generation of spintronic devices. .