Record Nr. UNINA9910809758103321 Clinical perfusion MRI techniques and applications / / edited by Peter B. **Titolo** Barker, Xavier Golay, Greg Zaharchuk [[electronic resource]] Pubbl/distr/stampa Cambridge:,: Cambridge University Press,, 2013 **ISBN** 1-316-08947-9 1-107-24124-3 1-107-24836-1 1-107-25085-4 1-139-00405-0 1-107-24753-5 1-107-25002-1 1-107-24919-8 Descrizione fisica 1 online resource (xv, 356 pages) : digital, PDF file(s) Collana Cambridge medicine Disciplina 616.1/307548 Soggetti Blood-vessels - Magnetic resonance imaging Angiography Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Title from publisher's bibliographic system (viewed on 05 Oct 2015). Note generali Includes bibliographical references and index. Nota di bibliografia Imaging of flow: basic principles / James R. Ewing, David Bonekamp, Nota di contenuto and Peter B. Barker -- Susceptibility contrast MRI: acquisition and analysis techniques / Matthias J.P. van Osch -- Arterial spin labeling-MRI: acquisition and analysis techniques / Xavier Golay -- DCE-MRI: acquisition and analysis techniques / Paul S. Tofts and Geoff J.M. Parker -- Imaging of brain oxygenation / Weili Lin ... [et al.] -- Vascular space occupancy (VASO) imaging of cerebral blood volume / Hanzhang Lu and Jinsoo Uh -- MR perfusion imaging in neuroscience / Manus J. Donahue and Peter Jezzard -- MR perfusion imaging in neurovascular disease / Greg Zaharchuk -- MR perfusion imaging in neurodegenerative disease / Norbert Schuff -- MR perfusion imaging in clinical neuroradiology / Blake E. McGehee, Joseph A. Maldjian, and Jonathan Burdette -- MR perfusion imaging in oncology: neuro applications / Ramon Francisco Barajas Jr. and Soonmee Cha -- MR perfusion imaging in oncology: applications outside the brain / James

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## Sommario/riassunto

MR perfusion imaging is an area of major research interest and rapid clinical growth. Clinical Perfusion MRI: Techniques and Applications provides a concise and comprehensive review of the principles and applications of the field, covering dynamic susceptibility contrast, dynamic contrast enhancement, and arterial spin labeling imaging techniques. Principles of blood-volume and oxygenation imaging are included. The clinical applications of perfusion imaging in neurological disease and neuroscience are discussed - major topics including its use in imaging cerebrovascular disease and brain tumors and other neurological and neurodegenerative disorders. Non-neurologic applications are also covered with chapters on cardiac disease, breast cancer and other organ systems. Use of MR perfusion imaging in pediatrics is also discussed. Throughout the book case reports are included illustrating representative clinical examples. This book will be of interest to any clinician who uses MR perfusion imaging in their clinical practice, as well as researchers in the field of MRI.