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Nota di contenuto	Quantitative MRI of the Brain; Contents; Contributors; Reviewers; Foreword; Introduction; Section A: The Measurement Process; 1 Concepts: Measurement and MR; 2 The Measurement Process: MR Data Collection and Image Analysis; 3 QA: Quality Assurance, Accuracy, Precision and Phantoms; Section B: Windows into the Brain: Measuring MR Parameters; 4 PD: Proton Density of Tissue Water; 5 T(1): the Longitudinal Relaxation Time; 6 T(2): the Transverse Relaxation Time; 7 D: the Diffusion of Water; 8 MT: Magnetization Transfer; 9 Spectroscopy: (1)H Metabolite Concentrations 10 T(1)-w DCE-MRI: T(1)-weighted Dynamic Contrast-enhanced MRI 11 T(2)- and T*(2)-w DCE-MRI: Blood Perfusion and Volume Estimation using Bolus Tracking; 12 Functional MRI; 13 ASL: Blood Perfusion Measurements Using Arterial Spin Labelling; Section C: The Biology; 14 Biology: The Significance of MR Parameters in Multiple Sclerosis; Section D: Analysing Images; 15 Spatial Registration of Images; 16 Volume and Atrophy; 17 Shape and Texture; 18 Histograms: Measuring Subtle Diffuse Disease; Section E: Where are we Going?; 19 The Future

Sommario/riassunto

2004 BMA Medical Book Competition Winner (Radiology category) "This is an exciting book, with a new approach to use of the MRI scanner. It bridges the gap between clinical research and general neuro-radiological practice. It is accessible to the clinical radiologist, and yet thorough in its treatment of the underlying physics and of the science of measurement. It is likely to become a classic." British Medical Association This indispensable 'how to' manual of quantitative MR is essential for anyone who wants to use the gamut of modern quantitative methods to measure the eff