Magnetic Resonance Imaging is still clearly intended as a book for the specialist but I think the third edition makes the material accessible to the beginning student as very reliable reference. The inclusion of over 100 well annotated real images and example calculations reward the hard work needed with a very clear understanding of precisely how the different methods work and the extent. This book is devoted to a comprehensive introduction to MR Imaging physics. The book is organised in chapters devoted to a Magnetic Resonance Imaging, Second Edition begins with an introduction to fundamental principles, with coverage of magnetization, relaxation, quantum mechanics, signal detection and acquisition, Fourier imaging, image reconstruction, contrast, signal, and noise. The second part of the text explores MRI methods and applications, including fast imaging, water-fat separation, steady state gradient echo imaging, echo planar imaging, diffusion-weighted imaging, and induced magnetism. Lastly, the text discusses important hardware issues and parallel imaging. Readers familiar with the first edition will recognize the powerful and comprehensive approach to MR Imaging. Some books deserve special mention: Magnetic Resonance Imaging: Physical and Biological Principles by Stewart C. Bushong. A good introduction that does not demand a technical background from its readers. Clinical Magnetic Resonance Imaging by Edelman, Hesselink and Zlatkin. Magnetic Resonance Imaging – Physical Principles and Sequence Design by Haacke, Brown, Thompson and Venkantesan. Broadly oriented textbook with plenty of physics, techniques and sequences. In practice, this means that a perpendicular magnetic field, that rotates in synchrony with the precession of the needle, will rotate it slowly around the rotating fields direction (meaning a slow precession around the weak rotating magnetic field).