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Autore	Topgaard Daniel
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Sommario/riassunto

The medical MRI community is by far the largest user of diffusion NMR techniques and this book captures the current surge of methods and provides a primary source to aid adoption in this field.

There is a trend to adapting the more advanced diffusion encoding sequences developed by NMR researchers within the fields of porous media, chemical engineering, and colloid science to medical research. Recently published papers indicate great potential for improved diagnosis of the numerous pathological conditions associated with changes of tissue microstructure that are invisible to conventional diffusion MRI. This book disseminates these recent developments to the wider community of MRI researchers and clinicians. The chapters cover the theoretical basis, hardware and pulse sequences, data analysis and validation, and recent applications aimed at promoting further growth in the field.

This is a fast moving field and chapters are written by key MRI scientists that have contributed to the successful translation of the advanced diffusion NMR methods to the context of medical MRI, from

global locations.