

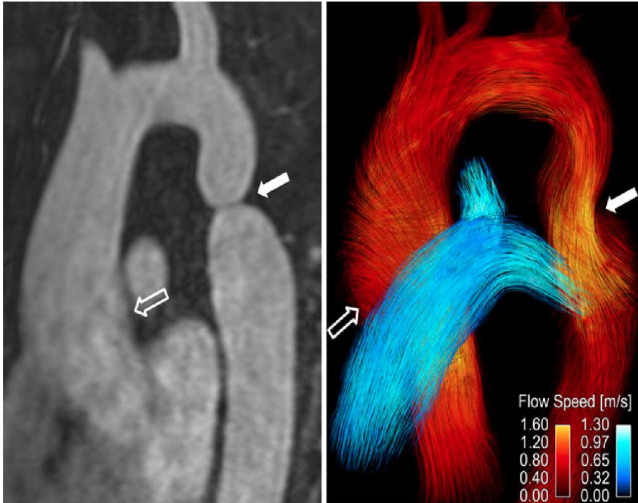
Advances in Quantitative MRI: Acquisition, Estimation, and Application

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Example: flow imaging

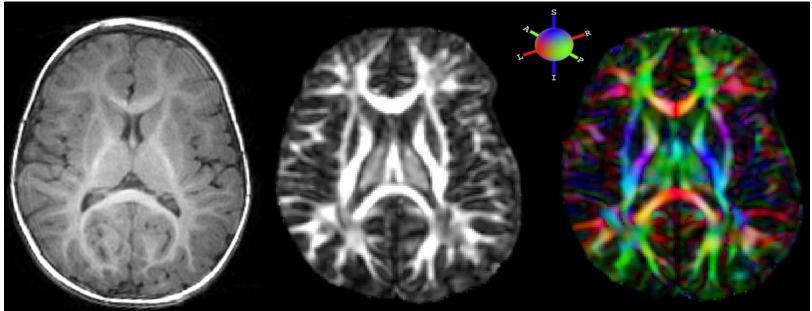


qualitative

quantitative¹

¹figure borrowed from [Hope et al., 2013]

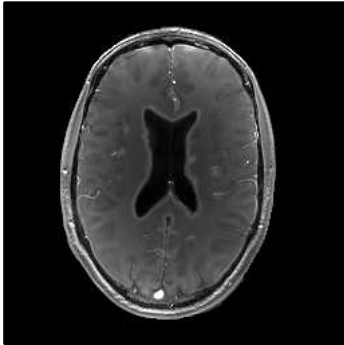
Example: diffusion imaging



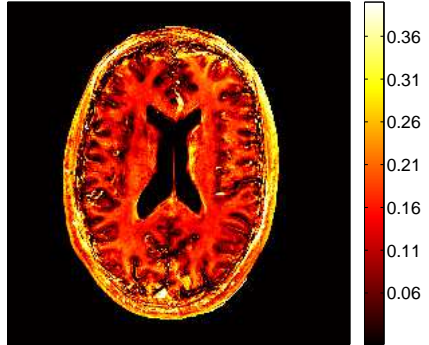
qualitative fractional anisotropy (FA) directional FA²

²figure borrowed from www.diffusion-imaging.com

Example: myelin water imaging



qualitative



fast-relaxing fraction³

³figure adapted from [Nataraj et al., 2017]

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Challenge: rapidly vs. accurately often competing goals

- more accurate models typically depend on more markers
- precisely estimating more markers usually requires longer scans and more computation

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- **Acquisition**

[Ch. 4]

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Hope, M. D., Wrenn, S. J., and Dyverfeldt, P. (2013).

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Curr. Cardiovasc. Imag. Rep., 6(2):128–39.



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