

Diffusion and Flow

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Magnetic resonance measurements of Molecular translation have improved dramatically since first introduced by Carr and Purcell in the 50's[1] . Today, diffusion, dispersion, advection and flow measurements are a fundamental tool, used routinely in a wide range of applications ranging from investigating chemical reactions[2] to in vivo characterization brain pathology[3]. At the core of most of these methods stands the Pulsed Field Gradient sequence that was introduced by Stejskal and Tanner in 1965[4].

In this talk we will cover the basic principles of diffusion and flow measurements using the classic PFG sequence, review the extension of the pulse sequence into 2D and other variants of the sequence [5][6]. We will also review some applications relevant to the microscopy community.

References

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