Specialty area: Instrumentation

Lecture title: NMR & MRI in Rotating Magnetic Fields

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Target audience: Students, Physicists / Engineers, Sequence developers

Outcome objectives:
- Essentials of NMR and MRI solid-state methodology
- Examples of high-resolution spectra of biopsies
- Examples of MRI in rotating samples
- Ultra slow spinning Methodology
- Hardware for Rotating Field MRI devices

Purpose:

To provide the essential knowledge about the current state of the art of anisotropic (solid-state) NMR theory and practice, and propose a novel approach towards rotating field MRI.

Methods:


Results:

Magnet, sequence and coil design. Requirements for efficient averaging, field uniformity and stability. High-resolution localized spectroscopy on static subjects. Demonstration study.

• Conclusion

We have the tools to make rotating field MRI devices offering high resolution MRS on static small animals.