

## Ramsey Spectroscopy

*Thursday 3 April 2025 09:05 (50 minutes)*

A grant application (FWF) is planned for this year. We will propose to develop the required techniques for Ramsey spectroscopy with hydrogen in a short (Rabi) setup in Vienna.

To achieve static magnetic fields of sufficient homogeneity over the increased volume of the Ramsey spectrometer a Type I superconducting tube shall be used. Providing the 1.42 GHz microwaves inside this tube without compromising the static field quality needs to be developed. The timeline would fit to finish developments and tests before the end of the next long shutdown in order to propose and build the Hbar Ramsey spectrometer based on the results.

(NB: the UHV requirements will benefit from such a cryogenic spectrometer beamline)

### Contribution area

New Technical Development

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