

量子物理实验平台

Experimental platform for training in quantum physics & engineering

Base module

Optical detection of magnetic resonance

Zeeman Effect

Hyperfine levels

A wide range of experiments

Base + Pulsed

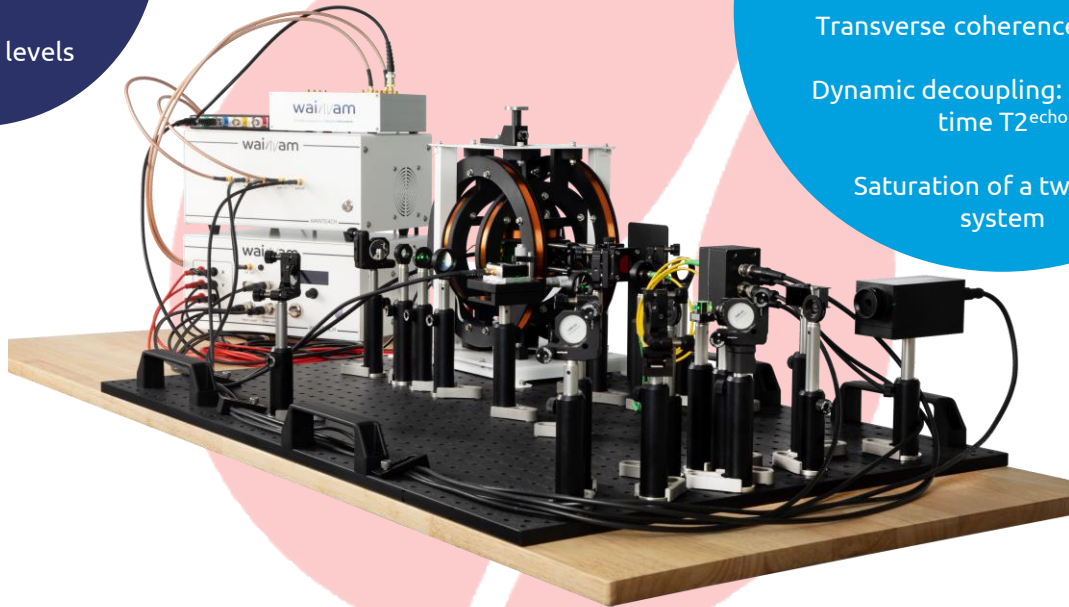
Longitudinal relaxation time T_1

Rabi oscillations

Transverse coherence time T_2^*

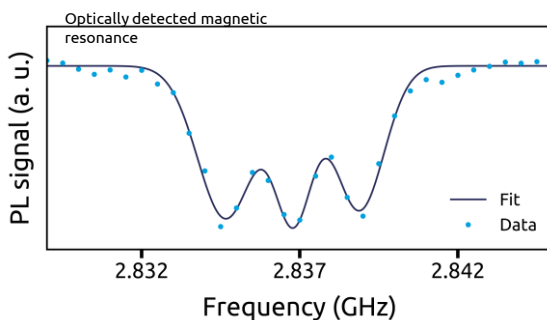
Dynamic decoupling: coherence time T_2^{echo}

Saturation of a two-level system

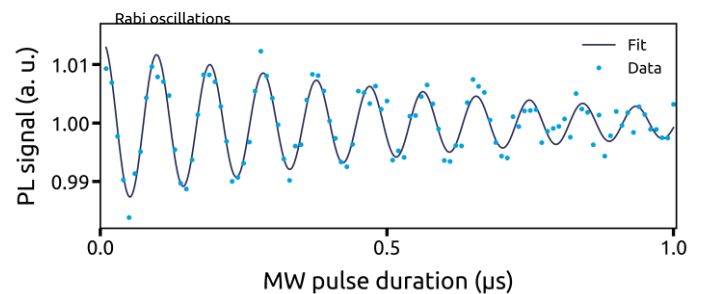


Measurement examples

Hyperfine levels



Rabi oscillations between two fine levels.



1 Base module - 1 Pulsed extension

Base module :

- Control unit
- 3 axis Helmholtz coils
- Photodetector
- Laser
- NV centre diamond and RF antenna
- Mechanical optics
- Software

Base + Pulsed :

- Pulse generator
- Acquisition control board
- AOM
- Photodetector
- RF switch

With complete
Teacher Book!

Main Advantages

- Simple experimental implementation (**no vacuum, no cryogenics ...**)
- Allows great flexibility and manipulation, for example on optical alignments.
- **Practical approach** to complete the theoretical knowledge
- From **Bachelor** to **PhD** level
- Robust, evolutive, customizable...and more