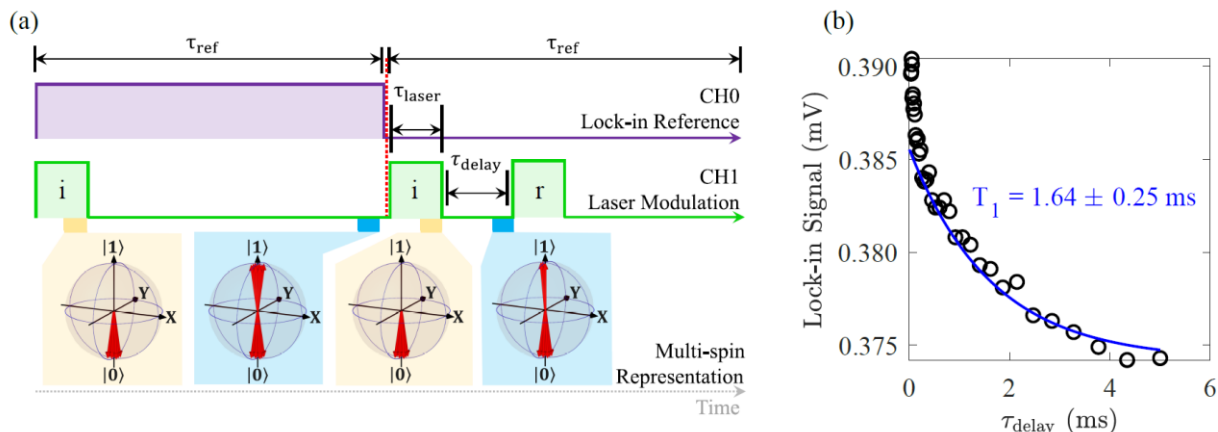


Spin-dynamics in magnetic 2D-materials

The field of van der Waals heterostructures, which are stacks on individual atomically thin crystal sheets, has exploded in the last decade. Specifically, magnetic 2D materials or heterostructures between different 2D materials have shown great promise for future Information technology.



The principal goal of this Masters thesis is to (i) enhance a currently available quantum camera system to enable coherent spin control of atomically thin materials (ii) image the spin lifetime and coherence times of magnetic phases of novel 2D-materials.

During the project you will work in close collaboration with a small team of Ph.D. students and postdocs, therefore individual effort is key to drive this Masters project.

Some knowledge in the areas of van der Waals stacking, optics, electronics or cleanroom fabrication will be beneficial, but secondary to your personal motivation and commitment to this project.

You should:

(1) Be highly motivated and self-driven, (2) be practically minded with a get-things-done attitude, (3) enjoy working across a wide range of tasks (processing, optics, electronics) and (4) be willing to work in a very small team on challenging things very long hours ...

You will get:

(1) the chance to work on current hot-topic issues in the area of 2D magnetism (2) gain highly sought after abilities in the field of quantum technologies (3) a sound understanding of the physics in atomically thin materials and hopefully (4) a few nice papers.

Interested? Please email finley@wsi.tum.de and Andreas.Stier@wsi.tum.de