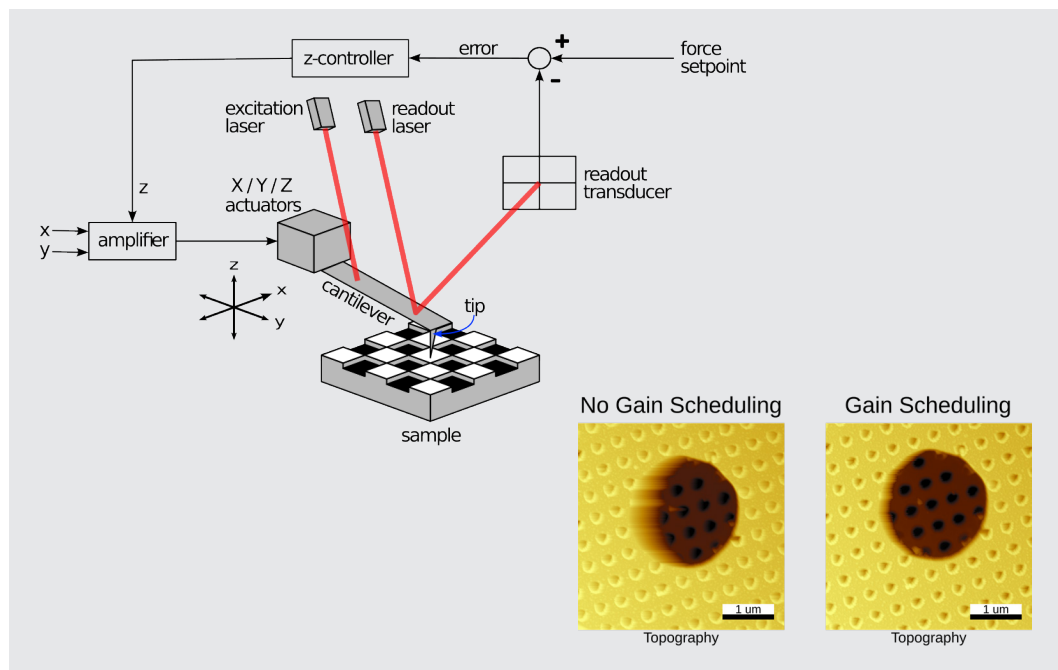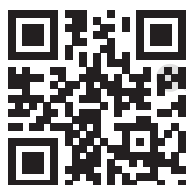# FPGA-Based Real-Time Signal Processing for Advanced High-Speed, High-Precision Atomic Force Microscopy

- Improving speed in fast scanning

- Dynamic adjustment of control loop

- Snap-off detection

- Ringing extraction by custom envelope

- Active ringing suppression

Bachelor Thesis
Authors: Florian Gilgen, Jannick Alder
Supervisor: Prof. Dr. Matthias Rosenthal
www.zhaw.ch/ines