

Abstract Submitted  
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**Measurements of Molecule-Based Magnets using micro-SQUID on a Waveguide** GUANG YUE, Florida State University, NHMFL, WOLFGANG WERNSDORFER, Institut Neel, IRINEL CHIORESCU, Florida State University, NHMFL — We describe a setup design which plans to use a dc micro-SQUID to measure the magnetization signal of a magnetic sample while the spins are excited by microwave pulses. Such on-chip techniques are gathering more and more interest. In a first approach, the SQUID chip containing the studied sample, will be placed on top of another chip containing the waveguide. Computer simulations are done to verify that the field strength is sufficiently strong and uniform in this case. In another approach, we integrate a microwave waveguide on the same chip as the SQUID. The presented setup will be able to sense the magnetic flux generated by rotating spins, without the need of analyzing the output microwave signal. The microwave will only serve as an input pulse, to excite the spin dynamics.

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