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**Spin torque and shot noise in a ferromagnet-antiferromagnet tunnel junction** GEORG SCHWIETE, The University of Alabama at Tuscaloosa , KEI YAMAMOTO, HELEN GOMONAY, JAIRO SINOVA, Johannes Gutenberg Universität Mainz — We study the junction between a ferromagnetic and an antiferromagnetic metal connected by a weak tunneling barrier. When a current is driven through the junction from the ferromagnet, a spin torque acts on the antiferromagnet and shot noise arises in connection with the current. To describe these phenomena theoretically, we derive an effective stochastic Landau-Lifshitz-Gilbert equation for the antiferromagnet in the macrospin approximation. In this talk I will discuss the different terms appearing in the equation as well as their microscopic origin.

Georg Schwiete
The University of Alabama at Tuscaloosa

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