

## **Influence of saturation magnetization on the Spin Torque Transfer switching of ferromagnetic elements**

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Spin-torque transfer is an exciting application of the inherent spin of each electron. We used our finite difference micromagnetic code  $M^3$  to simulate the behavior of thin film structures experiencing a spin-polarized current. A comparison with a finite element technique yielded results that were sufficiently accurate, particularly when care was taken to refine the mesh. Using  $M^3$  we analyzed the influence of a change in the saturation magnetization on the switching time of an elliptic cylinder. Our data shows the importance of the time scale set by the precession period in the element.