

Abstract Submitted  
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**A mechanical analogy for spin currents and torques**<sup>1</sup> YAROSLAW BAZALIY, University of South Carolina — We map the problem of spin-transfer torques in nanostructures with diffusive spin currents on a mechanical problem involving elastic strings connecting points of attachment that slide along the fixed straight rails. The obtained mechanical analogy provides a qualitative understanding of the effects of spin relaxation on spin torques, and of the phenomenon of sign-changing angular dependence [1-3] of the efficiency factor  $g(\theta)$ .

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