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Voltage induced by domain wall motion in a ferromagnetic nanowire YANG LIU, OLEG TRETIAKOV, ARTEM ABANOV, Department of Physics, Texas A&M University — We study current-induced domain-wall motion in a narrow ferromagnetic wire. We obtain an analytic expression for the voltage variation caused by the domain wall motion. Our finding shows that above critical current, the voltage will be periodic as the tilt angle of domain wall. Furthermore, we propose several possible measurements of the voltage to determine the parameters, which describe the motion of domain wall.

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