

# Controlling domain wall dynamics by interface engineering in devices with perpendicular magnetic anisotropy

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We will present our recent results of DW dynamics obtained in Ta-CoFeB-MgO nanodevices with perpendicular magnetic anisotropy (PMA) and discuss the critical problems to be addressed for its implementation into a memory device. We will focus on the possibility to control precisely DW dynamics from the creep to the flow regimes through interface engineering. This will be demonstrated using different strategies based on varying interface magnetic anisotropy using electric field effect, interface disorder and DMI using ion irradiation and edges disorder using nanowires.