NN magnetostatic coupling E<sub>MC</sub>  $1.25 k_BT$  $2.5 k_BT$  $10 \, k_B T$ 2 3 1.0 1.0 0.8 0.8  $40\,k_BT$ 0.6 0.6 0.4 0.4 0.2 0.2 Average magnetization mavg 0.0 Net OOP anisotropy EEA 5 6 1.0 0.8  $30\,k_BT$ 0.6 0.4 0.2 0.2 0.0 8 9 1.0 0.8 0.8  $20 \, k_B T$ 0.6 0.6 0.4 0.4 0.2 0.2 0.0 10<sup>-3</sup> 10<sup>3</sup> 10<sup>-3</sup> 10<sup>-3</sup>  $10^{-9}$  $10^{-9}$ 10<sup>3</sup>  $10^{-9}$ 10<sup>3</sup> Elapsed time (s)