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**Simulation of interacting nanoparticles with random anisotropy axes** JULIO F. FERNANDEZ, CSIC, Zaragoza, Spain, JUAN J. ALONSO, Universidad de Malaga, Spain — We report Monte Carlo simulation results for the collective behavior of single-domain nanoparticles with randomly oriented easy magnetization axes. Such randomness may follow from a random orientation of the crystalline axes within each nanoparticle. Dipole-dipole interactions, as well as nearest neighbor exchange interactions of various strengths are taken into account. We report on the effect random anisotropy has on long range order as well as on magnetic relaxation at low temperature.

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