

SIMULATION OF 3D SPIN CHAINS WITH GEOMETRY-DRIVEN ANISOTROPY

We develop a C-code based spin-lattice simulator SLasi for magnetization dynamics in ferro- and antiferromagnets. It solves discrete dynamical Landau-Lifshitz-Gilbert equations taking into account exchange and coordinate-dependent anisotropy defined in terms of local discrete Frenet-Serret reference frame calculated on fly. Runge-Kutta-Fehlberg integration scheme of 4-5 order is used for description of time evolution. A user-friendly interface for sample and integrator parameters is developed.

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