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Behaviour of spin glasses in a magnetic field MATTEO PALASSINI,

LPTMS, Université Paris-Sud — The low-temperature phase structure of spin glasses is still not understood beyond the mean-field level. In particular, it has not been possible to establish whether the ordered spin-glass phase is stable or unstable against the application of a weak external magnetic field. An answer to this question would allow to discriminate among widely discussed competing theories of spin glass ordering. In this talk, I will present recent numerical investigations of this issue for short-range spin glasses in three, four, and five dimensions, as well as dilute spin glasses, and discuss the results in the light of the various alternative theories.

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