DISCRETE AND CONTINUOUS SCHEMES IN SHERRINGTON-KIRKPATRICK MODEL

M. Ringel, A. Klíč, V. Janiš
Institute of Physics, Academy of Sciences of the Czech Republic, Na Slovance 2, CZ-18221 Praha, Czech Republic

We calculate a solution of Sherrington-Kirkpatrick model in a nonzero magnetic field. The solution is first calculated near the de Almeida-Thouless instability line in the framework of N-RSB as well as directly in the continuous limit. We discuss how the N-RSB solution approaches the continuous one in the limit of large N. The equations of the continuous limit are formulated in a novel way via T-ordered evolution operators. We study polynomial and discrete approximations to these operators. The aim is to find a reliable approximate solution in the entire spin glass phase.

9.7 cm

13.4 cm

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Corresponding author :
M. Ringel

Address for correspondence :
Institute of Physics, Academy of Sciences of the Czech Republic, Na Slovance 2, CZ-18221 Praha, Czech Republic

Email address :
ringel@fzu.cz