**MAGNETOCALORIC QUANTITIES OF THE SPIN-1/2 FISHER'S SUPER-EXCHANGE MODEL**

Lucia Gálisová

*Department of Applied Mathematics and Informatics, Faculty of Mechanical Engineering, Technical University in Košice, Letná 9, 042 00 Košice, Slovakia*

*galisova.lucia@gmail.com*

Magnetocaloric properties of the exactly solved spin-1/2 Fisher's super-exchange model on a decorated square lattice, in which the antiferromagnetic (ferromagnetic) nearest-neighbor coupling on horizontal (vertical) bonds together with the longitudinal magnetic field acting on decorating spins are supposed [M. E. Fisher, Proc. Roy. Soc. A **254**, 66 (1960); **256**, 502 (1960)], are rigorously investigated by means of basic magnetocaloric quantities, such as the isothermal entropy change, the adiabatic temperature change and the magnetic Grüneisen parameter. It is demostrated that the most pronounced magnetocaloric effect (i.e., the fastest heating of the system during the adiabatic demagnetization process) can be found in a vicinity of the critical magnetic field corresponding to the zero-temperature phase transition from the long-range ordered ground state to the paramagnetic ground state.

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