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Temperature dependent properties in the infinite-dimensional Hubbard model with a magnetic field — •Markus Dutschke¹, Liviu Chioncel^{1,2}, and Junya Otsuki³ — ¹Theoretical Physics III, Center for Electronic Correlations and Magnetism, Institute of Physics, University of Augsburg, D-86135 Augsburg, Germany — ²Augsburg Center for Innovative Technologies, University of Augsburg, D-86135 Augsburg, Germany — ³Department of Physics, Tohoku University, Sendai 980-8578, Japan

We investigate the temperature and field dependence of the spectral function, the effective mass enhancement and the magnetisation of the infinite-dimensional Hubbard model in a magnetic field. We compare results for different interaction strengths at half-filling, near half-filling and quarter-filling. These are achieved by using dynamical mean-field theory (DMFT) with a continuous-time quantum monte carlo (CT-QMC) impurity solver and are compared with some NRG results.

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