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## KOLOKVIJ FIZIČKOG ODSJEKA

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### Statistical mechanics, real life, and the Ising model

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The essential ingredient of the Ising model, invented in 1920 by Lenz, is an ensemble of "spins" which can point only up or down. Initially Lenz and his student Ernst Ising hoped that it would be a suitable physical model for anisotropic ferromagnets. They were bitterly disappointed when they discovered that the one-dimensional version, which Ising solved correctly, had no finite temperature transition. Despite this inauspicious beginning the Ising model was destined to become the fruit-fly of statistical mechanics, with more than two million citations on today's Google.

What makes for a successful model in physics, and why did this particular model succeed so well? We will scan through the history of the model (and of Ising himself) and give a partial overview of the present day situation.

Voditelj seminara i kolokvija FO

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