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*Ising models on power-law random graphs.*

**ABSTRACT:** We study a ferromagnetic Ising model on random graphs with a power-law degree distribution and compute the thermodynamic limit of the pressure when the mean degree is finite (degree exponent  $\tau > 2$ ), for which the random graph has a tree-like structure. For this, we adapt and simplify an analysis by Dembo and Montanari, which assumes finite variance degrees ( $\tau > 3$ ). We further identify the thermodynamic limits of various physical quantities, such as the magnetization and the internal energy.

(Joint work with C. Giardinà and R. van der Hofstad)