A Direct Calculation of Critical Exponents of Two-Dimensional Anisotropic Ising Model

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Abstract: Using an exact solution of the one-dimensional quantum transverse-field Ising model, we calculate the critical exponents of the two-dimensional anisotropic classical Ising model (IM). We verify that the exponents are the same as those of isotropic classical IM. Our approach provides an alternative means of obtaining and verifying these well-known results.

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