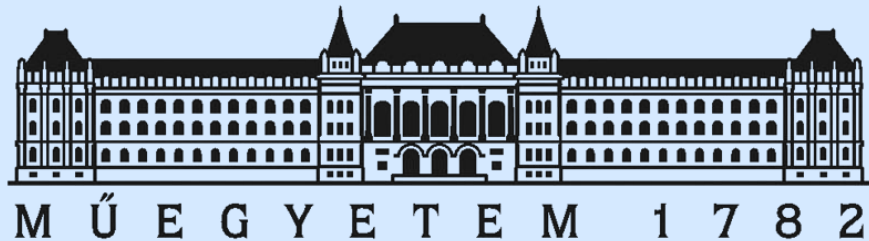


Nonanalytic correlation length in the Ising field theory

István Csépanyi, Márton Kormos

11th Bologna Workshop on Conformal Field Theory and Integrable Models



PROJECT
FINANCED FROM
THE NRDI FUND

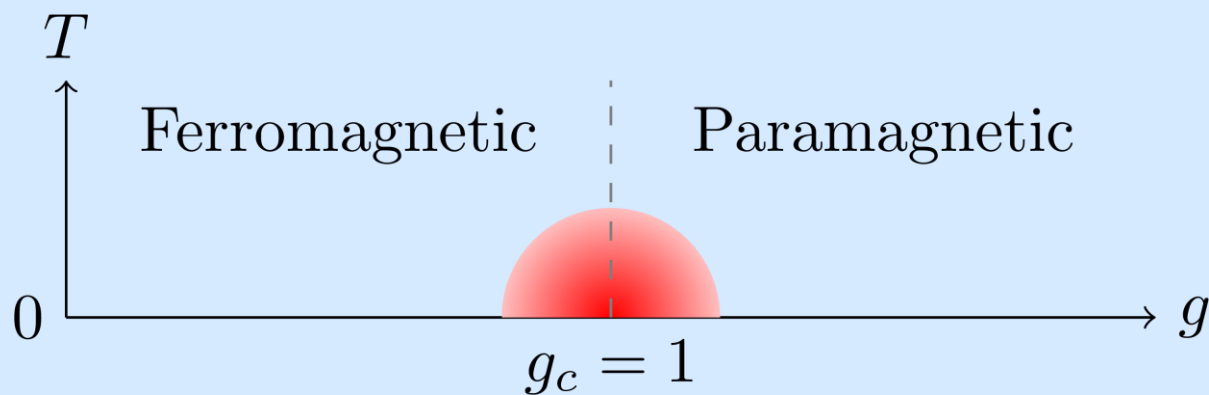
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$$\hat{H} = -J \sum_{j=1}^N (\hat{\sigma}_j^z \hat{\sigma}_{j+1}^z + g \hat{\sigma}_j^x)$$

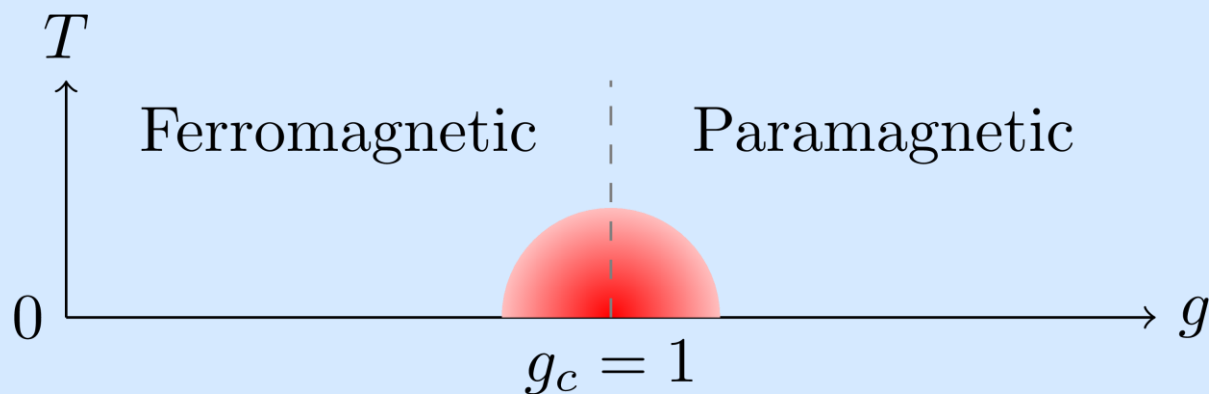
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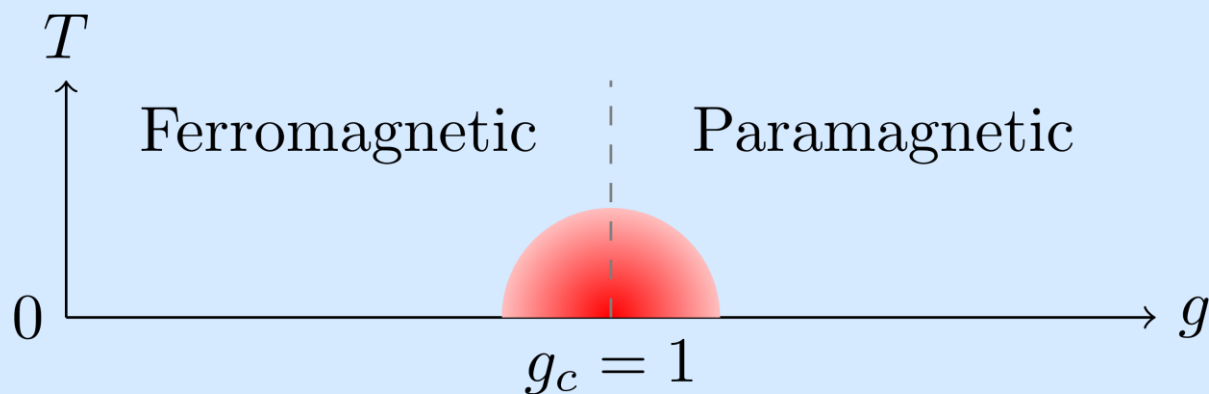
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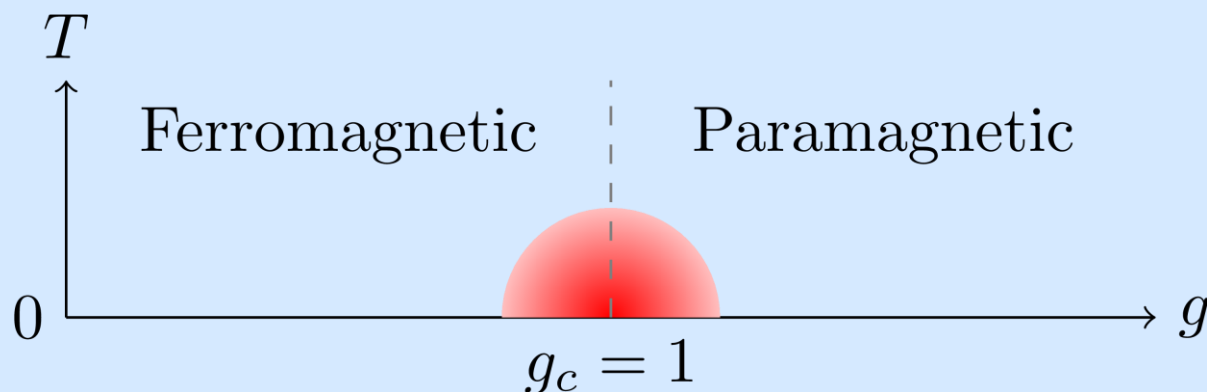


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Four parameters: x , $t = \zeta x$, β and PM/FM.

Methods

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Finite temperature form factor expansion

$$\left| \langle \theta_1, \dots, \theta_n | \hat{\sigma} | \theta'_1, \dots, \theta'_m \rangle \right| = m^{1/8} \frac{\prod_{1 \leq i < j \leq n} \tanh \left(\frac{\theta_i - \theta_j}{2} \right) \prod_{1 \leq k < l \leq m} \tanh \left(\frac{\theta'_k - \theta'_l}{2} \right)}{\prod_{i=1}^n \prod_{k=1}^m \tanh \left(\frac{\theta_i - \theta'_k}{2} \right)}$$

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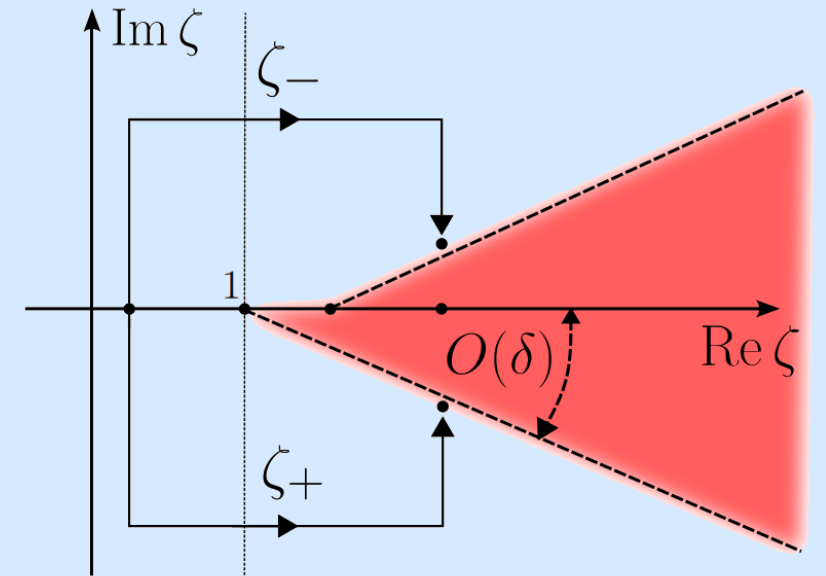
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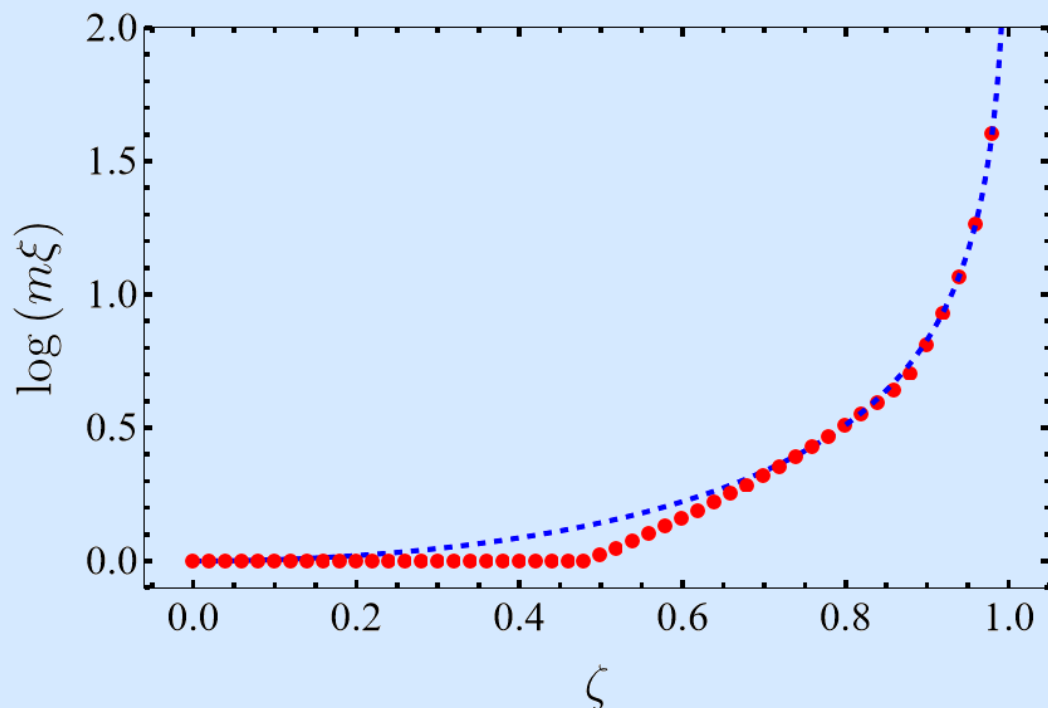
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