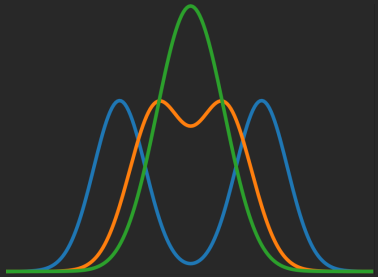
Unveiling the Kondo cloud: unitary RG study of the Kondo model



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January 27, 2022

The Model

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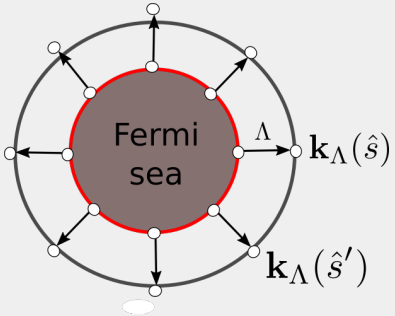
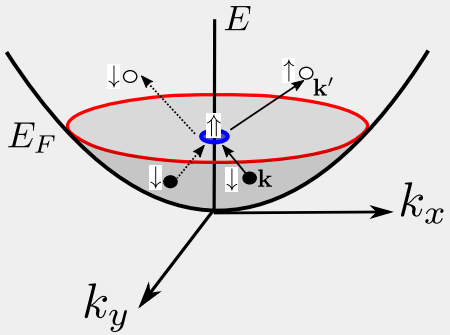
$$\mathcal{H} = \sum_{k\sigma} \epsilon_k \hat{n}_{k\sigma} + J\vec{S}_d \cdot \vec{s}, \qquad \vec{s} \equiv \sum_{kk',\alpha,\beta} \vec{\sigma}_{\alpha\beta} c^\dagger_{k\alpha} c_{k'\beta}$$





The Model

- Kondo coupling J renormalises to infinity

Anderson and Yuval 1969; Anderson 1970; Wilson 1975; Andrei, Furuya, and Lowenstein 1983a; Andrei, Furuya, and Lowenstein 1983b; Wiegmann 1981.

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- thermal quantities functions of single scale T/T_K

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