

## Spiral Magnetic Order in the One-Dimensional Kondo Lattice

LIU Zhen-Rong, LI Zheng-Zhong and SHEN Rui

Department of Physics, Nanjing University, Nanjing 210093, China  
Cryogenic Laboratory, The Chinese Academy of Sciences, Beijing 100080, China  
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**Abstract:** The effects of c-f (conduction-f electrons) hybridization on the spiral spin magnetism in the one-dimensional Kondo lattice are studied. By using the mean-field approximation, a close set of equations of the Green's functions with arbitrary wave vector  $Q$  for the spiral ordering of spins is deduced. The magnetic phase boundary between the spiral magnetism and ferromagnetism has been calculated approximately. From our qualitative results, one can find that the ferromagnetic region is enlarged due to the c-f hybridization. Moreover, some new results reflecting the Kondo effect, such as the modified dispersion relation and the weakening of the localized magnetic moments are also obtained.

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Key words: Kondo lattice, spiral magnetism, phase boundary

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