

# 凝聚态物理-北京大学论坛

北京大学物理学院凝聚态物理与材料物理研究所  
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## Relevance of 3d multiplet structure: from cuprates to infinite-layer nickelates

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时间: 6月17日 (星期四) 15:00—16:30  
地点: 北京大学物理大楼中212大教室

**报告人简介 (Aboutspeaker)** : 蒋密, 2014年于美国加州大学戴维斯分校获得博士学位, 2014-2020年在瑞士ETH和加拿大UBC从事博士后研究工作, 2021年加入苏州大学物理科学与技术学院任教授。研究兴趣集中在对各类强关联电子体系, 如非常规超导体, 重费米子材料等的理论和计算研究。近期研究方向侧重于新近发现的镍基超导体和重费米子体系。

**摘要 (Abstract)** : The recent discovery of superconductivity in doped rare-earth infinite-layer nickelates  $RNiO_2$ ,  $R=Nd, Pr$  as a new family of unconventional superconductors has inspired extensive research on their intriguing properties. One of the major motivation to explore the nickelate superconductors originated from their similarities with and differences from the cuprate superconductors.

In this talk, I will present our recent investigation of the relevance of Ni/Cu-3d multiplet structure on the hole doped spin states in cuprate and nickelate superconductors via an impurity model incorporating all the 3d orbitals. Further plausible explorations to be conducted will also be discussed.

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