

# 凝縮系物理学ゼミナール

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場所：理学部5号館 413号室

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## 「The Hubbard Model on the Bethe lattice with next-nearest-neighbor-hopping」

We study the interplay between Néel-antiferromagnetism and the paramagnetic metal-insulator-transition (PMIT) on a Bethe lattice with nearest and next-nearest neighbor hopping. For  $t_2/t_1 \rightarrow 1$  the PMIT outgrows the antiferromagnetic phase and for this strong frustration we also observe a novel magnetic phase. Away from half-filling, we can see the existence of a ferromagnetic phase, which is not present in the model without next-nearest-neighbor-hopping.