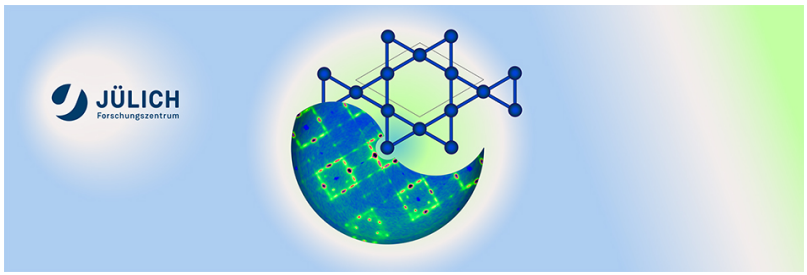

Beitrag ID: **64** Typ: **Talk**

Frustrated antiferromagnetism in a Kagome metal

Mittwoch, 8. Oktober 2025 09:30 (15 Minuten)

While the 120 degree antiferromagnetic order is the way of Nature to relieve the frustration of antiferromagnetic interaction on triangular and Kagome lattices and it has been observed in numerous insulating compounds of such lattices, Kagome metals have shown superconductivity and SDW phenomena. When antiferromagnetism in these Kagome metals is induced by doping, collinear antiferromagntic orders appears which break the three fold symmetry of antiferromagnetic interaction laying at the root of the frustration. Here we report new examples of frustrated antiferromagnetism in Sb doped FeGe with the hallmark 120 degree antiferromagnetic order and its evolution with Sb doping in a combined bulk and neutron study [1]. The robust of the 120 degree order is unexpected and surprising. To our knowledge, there is only one previous example of frustrated non-collinear antiferromagnet in the Kagome metal [2].

References
[1] J. Huang, et al., Phys. Rev. B, 2023, 108, 184431.
[2] Y. Chen, et al., Phys. Rev. B, 2020, 102, 054403.

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