

Ferromagnetic to paramagnetic transition of SrRuO₃ under pressure

Anh Tong^{1*}, Pau Jorba¹, Marc Seifert¹, Stefan Kunkemöller², Kevin Jenni², Markus Braden²,

James S. Schilling¹, Christian Pfleiderer¹

¹*Technical University of Munich, James-Franck-Str.1, Germany*

²*University of Cologne, Zùlpicher Str. 77, Germany*

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*e-mail: anh.tong@frm2.tum.de

In the Ruddlesden-Popper perovskite series, Sr_{n+1}Ru_nO_{3n+1}, intense experimental and theoretical efforts have been dedicated to unravel the nature of unconventional superconductivity in single-layer Sr₂RuO₄ (n=1) as well as a putative electronic nematic phase masking the quantum critical end-point in the double-layer itinerant metamagnet Sr₃Ru₂O₇ (n=2). We report an experimental study of the zero temperature ferromagnetic to paramagnetic transition under pressures up to 20 GPa in high quality single crystals of the infinite layer itinerant ferromagnet SrRuO₃ (n=∞). Our study aims to reconcile the properties of Sr₃Ru₂O₇ and Sr₂RuO₄ with the generic temperature-pressure-magnetic field phase diagram of itinerant ferromagnets.