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Superconducting and normal state properties in Uranium-based materials from thermal and thermoelectric measurements J.-PH. REID, J. BARRACLOUGH, University of St-Andrews, O. ENTWISLE, C. LITHGOW, D. SOKOLOV, W. WHITLEY, E. YELLAND, ANDREW HUXLEY, University of Edinburgh — Although it is clear that the interplay between superconductivity and magnetic or charge orders has a crucial role to the origin of superconductivity, it is not yet understood how and why that is. One of the best ways to shed light on this question is by measuring thermal conductivity and thermoelectricity. The former probes the zero-energy ($T \rightarrow 0$) quasiparticles and is very sensitive to the superconducting gap structure, whereas the latter is ideal to detect any change in the Fermi surface due to competitive orders. In this talk, a thermal and thermoelectric study will be presented and will focus on the ferromagnetic superconductor URhGe.

Jean-Philippe Reid
St-Andrews University

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