

Biography:

Alix McCollam is originally from Dublin, but grew up and went to school in Bradford, West Yorkshire, in the UK. She completed an undergraduate degree in Natural Sciences at Trinity College Dublin, in 2000, and then moved to Cambridge, UK, for a PhD at the Cavendish Laboratory. Following her PhD she worked as a postdoctoral fellow in the Department of Physics at the University of Toronto, Canada. In 2009, she moved to the High Field Magnet Laboratory (HFML-FELIX) and Radboud University in Nijmegen, the Netherlands, where she was first a Marie Curie Fellow, and then a faculty member at Radboud University and senior staff scientist at HFML-FELIX. Alix moved to UCC as the SALI Professor of Quantum Technology in 2023.

Research Interests:

Understanding novel phases of quantum matter that arise because of strong electronic correlations. Development of experimental techniques, especially thermodynamic and transport measurements.

Qualifications:

B.A.(Hons) Natural Science, Trinity College Dublin, Ireland.

Ph.D, *Thermodynamic Properties of Unconventional Superconductors*.
Cavendish Laboratory, University of Cambridge, UK.

University Teaching Qualification (BKO), Radboud University, Netherlands.

Publications:

Femke Bangma, L. Levitin, M. Lucas, A. Casey, J. Nyeki, I. Broeders, A. Sutton, B. Andraka, S. Julian, J. Saunders and A. McCollam. *Diverse influences of hyperfine interactions on strongly correlated electron states*. arXiv:2305.17088 (2023).

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Marieke. M. Glazenburg, Luca Consoli, and Alix McCollam. *Phase transition modelling of relapse in major depressive disorder: Developing and reflecting on an interdisciplinary conceptual translation* arXiv:2302.13895(2023).

Pascal Reiss, Alix McCollam, Zachary Zajicek, Amir A. Haghighirad, and Amalia I. Coldea. *Collapse of Metallicity and High- T_c Superconductivity in the High-Pressure phase of $FeSe_{0.89}S_{0.11}$* . arXiv: 2212.06824.

Konstantin Semeniuk, Hui Chang, Jordan Baglo, Sven Friedemann, Audrey Grockowiak, William A. Coniglio, Monika B. Gama, Pascal Reiss, Patricia Alireza, Inge Leermakers, Alix McCollam, Stan Tozer, F. Malte Grosche. *Truncated mass divergence in a Mott metal*. arXiv:2202.04024.

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K. Götze, I. Kraft, J. Klotz, T. Förster, M. Uhlarz, V. Lorenz, C. Bergmann, Y. Prots, J. A. N. Bruin, A. McCollam, I. Sheikin, J. Wosnitza, C. Geibel, and H. Rosner. *Highly sensitive band structure of the Stoner-enhanced Pauli paramagnet SrCo₂P₂*. Physical Review B, **104**, 085148 (2021).

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K. Beauvois, N. Qureshi, R. Tsunoda, Y. Hirose, R. Settai, D. Aoki, P. Rodière, A. McCollam, and I. Sheikin. *Magnetic structure of Cd-doped CeIrIn₅*. Physical Review B **101**, 195146 (2020).

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M. Bristow, P. Reiss, A. A. Haghighirad, Z. Zajicek, S. J. Singh, T. Wolf, D. Graf, W. Knafo, A. McCollam, and A. I. Coldea. *Anomalous high-magnetic field electronic state of the nematic superconductors $FeSe_{1-x}S_x$* . Physical Review Research **2**, 013309 (2020).

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K. Götze, Y. Krupko, J A N. Bruin, J. Klotz, R D H. Hinlopen, S. Ota, Y. Hirose, H. Harima, R. Settai, A. McCollam, and I. Sheikin. *Quasi-two-dimensional Fermi surfaces with localized f electrons in the*

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