Contribution ID: **99** Type: **Talk**

【623】Hallmarks of Hund's coupling in the Mott insulator Ca2RuO4

Thursday 24 August 2017 11:30 (15 minutes)

Ca_2RuO_4 is an archetypal example for multi-band Mott physics including spin-orbit and Hund's coupling. For decades, the mechanism underlying its Mott insulating state has remained elusive. This talk will present the complete low-energy ruthenium band structure as observed by ARPES in the paramagnetic insulating state of Ca_2RuO_4 . These results suggest that Ca_2RuO_4 is a unique example of an orbital differentiated conventional band and Mott insulator. The talk we make a strong effort to explain how this conclusion is reached independently from both DMFT calculations and a purely phenomenological DFT model.

Author: SUTTER, Denys (University of Zurich)

Co-authors: Mrs FATUZZO, Claudia (EPFL); Dr MOSER, Simon (Advanced Light Source); Dr KIM, Minjae (CNRS, Univ Paris-Saclay); Dr FITTIPALDI, Rosalba (CNR-SPIN); Dr VECCHIONE, Antonio (CNR-SPIN); Dr GRANATA, Veronica (CNR-SPIN); Dr SASSA, Yasmine (Uppsala University); Mr COSSALTER, Fabio (University of Zurich); Mr GATTI, Gianmarco (EPFL); Prof. RØNNOW, Henrik (Ecole Polytechnique Federale de Lausanne, Laboratory for Quantum Magnetism, Lausanne, Switzerland); Mr PLUMB, Nicholas (PSI); Dr MATT, Christian (University of Zurich); Prof. SHI, Ming (PSI); Dr HOESCH, Moritz (Diamond Light Source); Dr KIM, Timur (Diamond Light Source); Dr CHANG, Tay-Rong (National Tsing Hua University); Prof. JENG, Horng-Tay (National Tsing Hua University); Dr JOZWIAK, Chris (Advanced Light Source); Dr BOSTWICK, Aaron (Advanced Light Source); Prof. ROTENBERG, Eli (Advanced Light Source); Prof. GEORGES, Antoine (CNRS Univ Paris-Saclay, University of Geneva); Prof. NEUPERT, Titus (University of Zurich); Prof. CHANG, Johan (University of Zurich)

Presenter: SUTTER, Denys (University of Zurich)

Session Classification: Correlated-Electron Physics in Transition-Metal Oxides

Track Classification: Correlated-Electron Physics in Transition-Metal Oxides