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(G*) (POS-10) Angle-Resolved Photoemission (ARPES) on the Current-Induced Metallic State of Ca₂RuO₄

Tuesday, 7 June 2022 17:30 (2 minutes)

The quasi-2D Mott insulator Ca₂RuO₄ has a metal-to-insulator transition (MIT) controllable through temperature, pressure, epitaxial strain, and curiously – electrical current. However, the mechanism by which the current induces the MIT has yet to be understood. We use angle-resolved photoemission spectroscopy (ARPES) with nanometer scale resolution to compare the electronic band structures in equilibrium and in non-equilibrium, or with and without current respectively. Preliminary results show a clear closure of the band gap and a more equal distribution in photoemission intensities.

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