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Electronic Structure near Metal-Insulator Transition in $Sr_{3-x}La_xIr_2O_7$ GREGORY AFFELDT, University of California, Berkeley, TOM HOGAN, Boston College, CHRISTOPHER SMALLWOOD, University of California, Berkeley, TANMOY DAS, Los Alamos National Laboratory, SUNG-KWAN MO, Lawrence Berkeley National Laboratory, STEPHEN WILSON, University of California, Santa Barbara, ALESSANDRA LANZARA, University of California, Berkeley — The bilayer perovskite iridate $Sr_3Ir_2O_7$ exhibits an insulating state at low temperature driven by the cooperation of spin-orbit coupling and moderate Coulomb correlations. Transport measurements have shown a metal-insulator transition with electron doping in $Sr_{3-x}La_xIr_2O_7$ near x = 0.12. We will show how the electronic structure evolves through the metal to insulator transition and discuss these results in terms of strong correlations and how these evolve with doping.

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