

Abstract Submitted  
for the MAR10 Meeting of  
The American Physical Society

**Fermi surface and superconducting gap of  $\text{FeTe}_{1-x}\text{Se}_x$  superconductor studied by high-resolution ARPES** KOSUKE NAKAYAMA, TAKAFUMI SATO, TAKUMA KAWAHARA, YOICHI SEKIBA, Tohoku University, PIERRE RICHARD, WPI-AIMR, Tohoku University, GEN-FU CHEN, Renmin University of China, TIAN QIAN, JIAN-LIN LUO, NAN-LIN WANG, HONG DING, Chinese Academy of Sciences, TAKASHI TAKAHASHI, WPI-AIMR, Tohoku University — The origin of superconductivity in  $\text{FeTe}_{1-x}\text{Se}_x$  superconductor is a subject of intensive debate, since the parent compound  $\text{FeTe}$  shows considerably different electronic and magnetic properties compared to  $\text{FeAs}$ -based families. To clarify the superconducting mechanism, an experimental investigation of the low-energy electronic structure is of particular importance. Here, we report our recent high-resolution ARPES results on  $\text{FeTe}_{1-x}\text{Se}_x$  superconductor, and demonstrate several universalities in the electronic states between  $\text{FeTe}_{1-x}\text{Se}_x$  and  $\text{FeAs}$ -based superconductors.

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Date submitted: 18 Nov 2009

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