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Abstract for an Invited Paper
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Glide-Plane Symmetry and Superconducting Gap Structure of Iron-Based Superconductors¹

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This talk will provide a review [1] of the implications of the glide plane symmetry of a single Fe-pnictide/chalcogen plane on the structure of the superconducting gap. It will be shown that η -pairing with non-zero total momentum occurs inevitably in this system, but that its contribution to the superconducting condensate has the usual even parity symmetry and time reversal symmetry is preserved. I will demonstrate that for a single plane the gap function, which appears in physical quantities, is identical to that found in 1 Fe per unit cell pseudo-crystal momentum calculations and discuss the effects of the symmetry breaking out-of-plane hopping integrals in three dimensions. [1] Y. Wang, T. Berlijn, P. J. Hirschfeld, D. J. Scalapino, T. A. Maier, Phys. Rev. Lett. 114, 107002 (2015).

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