

Superconducting gap in the pnictides –theory and ARPES

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I review recent theory works on the gap structure in Fe-pnictides and compare theory predictions with laser and Synchrotron ARPES measurements. I discuss the arguments for s_{++} , s_{+-} , and d-wave gaps and argue in favor of s_{+-} gap for both moderately and strongly doped materials. I further discuss the evidence for symmetry-allowed angle variation of the s_{+-} gap and for potential gap nodes, and suggest new ARPES experiments to verify recent theory proposals of vertical loop nodes in P-doped pnictides.

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