

# Superconducting gap in the pnictides –theory and ARPES

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Andrey V. Chubukov  
University of Wisconsin, Madison

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.

**Primary author:** CHUBUKOV, Andrey (University of Wisconsin, Madison)

**Presenter:** CHUBUKOV, Andrey (University of Wisconsin, Madison)

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