

# **Emerging symmetries and the pseudo-gap state of the cuprates**

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In this talk we review the state of the art theories and experiments for the longstanding issue of understanding the pseudo-gap state of the cuprate superconductors. We discuss in particular recent experiments showing the ubiquitous presence of charge modulations in the under-doped region of these compounds. A theory where d-wave superconductivity and charge order are connected by an emerging  $SU(2)$  symmetry is then presented and we will focus on its implications for the pseudo-gap line and the generic phase diagram of these compounds.