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Pseudogap correlations inside the superconducting dome ELENA BASCONES, BELEN VALENZUELA, Instituto de Ciencias Materiales de Madrid (CSIC) — Recent experiments[1,2] have uncovered, two energy scales, an antinodal energy scale and a nodal one in the superconducting phase of underdoped hole doped cuprates. This finding reminds the nodal-antinodal dichotomy seen in the pseudogap state. The competing Yang-Rice-Zhang[3] scenario for the pseudogap has shown to be useful to understand these experiments[4]. Here we explore the effect of the competition between pseudogap and superconductivity on the condensation energy and superfluid density which show deviations from the standard BCS behavior. We compare the theoretical results with experiments.

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