

Abstract Submitted  
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**Theories that try to describe pairing fluctuations above  $T_c$ : a critical evaluation** FRANK MARSIGLIO, Dept. of Physics, University of Alberta, SIMONA VERGA, Dept. of Physics, University of Alberta, ROBERT J. GOODING, Department of Physics, Queen's University — Over the past couple of decades many attempts have been made to understand the pairing instability crossover from weak coupling to strong coupling, particularly at finite temperature. While the physics is *qualitatively* understood, there is still dispute over what theoretical framework accurately represents this physics. We offer our two cents worth by examining the strong coupling limit in a weak coupling framework, and find one prescription, used extensively by Levin and coworkers, and based on a modified proposal dating back to Kadanoff and Martin, works remarkably well.

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