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Abstract for an Invited Paper for the SES11 Meeting of the American Physical Society

Holographic superconductors at low temperatures¹ GEORGE SIOPSIS, University of Tennessee

Holographic models of superconductivity offer a promising approach to the understanding of strongly coupled superconductors. Their properties are derived from non-linear field equations which are hard to solve, especially at low temperatures. I will discuss analytic tools that generate solutions down to zero temperature. This exploration is important for the understanding of the ground state of these systems. I will present results in the probe limit (vanishing chemical potential μ), as well as the extremal limit (small critical temperature to chemical potential (T_c/μ) ratio).

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