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The string theory – condensed matter flirtation: an eyewitness account

Jan Zaanen, Instituut-Lorentz for Theoretical Physics, Leiden University, The Netherlands

A quake is rumbling through the core of physics: the empiricisms of condensed matter physics and the mathematics of string theory appear to have some deep relations. For the initiated this has an unusually strong allure, but since this cocktail involves some of the most impenetrable areas of physics it is not easy to communicate the excitement to the community at large. I will attempt to get some of it across by telling the story from the perspective of a condensed matter theorist who learned string theory only quite recently. How string theory evolved from a reductionist's enterprise into some modern incarnation of statistical physics, equipped with general relativity turbo's and quantum information boosters in the form of the "AdS/CFT" holographic duality. How the universality of general relativity turned into a classification method for phases of matter, including new forms of "quantum" matter characterized by dense quantum entanglements on the macroscopic scale. How the latter reveal highly unusual traits having eerie resemblances with the mysterious experimental observations, with as highlight the famous linear resistivity measured in the strange metal phase of the high Tc supercondcutors.