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Shamit Kachru* (skachru@kitp.ucsb.edu), Kavli Institute for Theoretical Physics, University of California, Santa Barbara, CA 93106. *New Horizons in Holography*.

AdS/CFT duality provides a new window into the behavior of strongly coupled quantum field theories. Recent progress has uncovered new avatars of this duality which apply to non-relativistic systems at finite charge density and temperature, and may be reasonable toy models of condensed matter systems. The generic infrared phases of these theories are captured by the attractor mechanism, which governs the near-horizon geometry of charged black branes. One central lesson which is emerging is that behaviors of strongly coupled field theories at finite charge density can be classified by a zoo of new kinds of black brane horizons which carry intricate hair. (Received January 08, 2010)