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Spin Glasses at the Bond Percolation Threshold[1] EMILIANO MARCHETTI, STEFAN BOETTCHER, Physics Department, Emory University, Atlanta GA — Low energy excitations for the Edwards-Anderson model on hypercubic lattices at the bond percolation threshold p_c are investigated. At $T = 0$, p_c separates paramagnetic and spin glass phases. At the "edge" of the ordered state, these excitations are characterized by a distinct scaling exponent. This exponent allows to determine the shape of the phase boundary, $T_c(p) \sim (p - p_c)^\phi$, for $p \to p_c^+$, which is experimentally measurable in $d = 3$. At p_c, very large spin glass systems can be studied with an *exact* reduction algorithm[2] to produce accurate scaling behavior. For more information, see http://www.physics.emory.edu/faculty/boettcher/

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[2]Europhys. Lett. **67**, 453 (2004)

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