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# Critical behaviour in the single-flavor Planar Thirring Model

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The Thirring model describes relativistic fermions with a contact interaction between conserved fermion currents. In 2+1 spacetime dimensions its U($2N$) global symmetry is broken at strong coupling to U($N$)$\otimes$U($N$) through generation of a non-vanishing bilinear condensate $\langle\bar{\psi}\psi\rangle \neq 0$. I present results of numerical simulations of the single-flavour model using domain wall fermions, which preserve U(2) in the limit wall separation $L_s \to \infty$. The results confirm symmetry breaking takes place implying the critical flavour number $N_c \geq 1$. I will also present results for the critical equation of state showing it is consistent with the existence of a quantum critical point with critical exponents distinct from those obtained with staggered fermions.

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