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Walking technicolor: testing infra-red conformality with exact results in two dimensions

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We study two exactly solvable conformal models, the critical 2d Ising
model and the
Sommerfield model on the lattice. We find that some conditions on the
geometry of the
lattice must be fulfilled in order to obtain results free of systematic
errors. In the Sommerfield model we also
introduce a mass deformation and measure the mass anomalous dimension,
γ_m. We find that the explicit scale breaking of the lattice
induces
corrections which have to be taken into account in order to reproduce
γ_m
at the infrared fixed point. These results can be used to improve the
methodology in the search for the conformal window in QCD-like theories
with
many flavors.

Primary author: Mr AKERLUND, Oscar (ETH Zurich)

Co-author: DE FORCRAND, Philippe (ETH Zurich)

Presenter: Mr AKERLUND, Oscar (ETH Zurich)

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