

New Perspectives in Conformal Field Theorie and Gravity

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NEW PERSPECTIVES IN CONFORMAL FIELD THEORY AND GRAVITY

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Subsystem Symmetries

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Systems with subsystem symmetries have recently emerged as an important frontier in theoretical physics. They arise in novel lattice systems, describing “fractonic” phases of matter – a generalization of topological phases. From the formal point of view, they challenge dearly held notions about what a quantum field theory is, most notably the Wilsonian paradigm. After reviewing these recent developments we’ll highlight a few recent applications: symmetry breaking, interactions, foliated field theories and spacetime subsystem symmetries.

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