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Towards phenomenological implications of asymptotically safe quantum gravity in particle physics ASTRID EICHHORN, CP3-Origins, University of Southern Denmark Heidelberg University

Scale-symmetry is providing a new guiding principle in the understanding of the quantum structure of spacetime, most importantly in the asymptotic-safety approach to quantum gravity.will review the key idea of the approach, the evidence for its viability and highlight open questions, before presenting work aimed at bridging the gap between the quantum-gravity regime and phenomenology in particle physics.