

VII Leopoldo García-Colín Mexican Meeting on Mathematical and Experimental Physics



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DAVID VERGARA: Quantum Geometry from a Noncommutative C^* -twisted Poincaré algebra

Thursday, 20 February 2020 18:00 (30 minutes)

We investigate a quantum geometric space in the context of what could be considered an emerging effective theory from quantum gravity. Specifically we consider a two-parameter class of twisted Poincaré algebras, from which Lie-algebraic noncommutativities of the translations are derived as well as associative star-products, deformed Riemannian geometries, Lie-algebraic twisted Minkowski spaces, and quantum effects that arise as noncommutativities. Applying the GNS construction we derive the extremal pure states and corresponding local convexes and combined convex hull and we describe the associated topological structure of the convex hull.

Session Classification: SHORT TALKS

Track Classification: SYMPOSIUM ON BLACK HOLES AND GRAVITATIONAL WAVES