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Isospectral deformation: 3-spheres $S^3_\theta$ and its geometric invariance

The development of formulae for the curvatures in noncommutative geometry is a fairly recent achievement. This is based on heat equation techniques and pseudodifferential calculus. However, the definition of connections dates back to Connes’s 1980 paper *C*-algebres et geometrie differentielle. The noncommutative version of the Levi Civita theorem, for noncommutative tori with strong Diophantine approximation property, was proved in 2013 by Rosenberg. In my talk, I will present our result extending Rosenberg’s by the tools Arnlind and I developed for the noncommutative 3-spheres $S^3_\theta$. 