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*Isospectral deformation: 3-spheres  $S_\theta^3$  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  $S_\theta^3$ .