

LEVI-CIVITA CONNECTIONS FOR NONCOMMUTATIVE TORI IN DERIVATION BASED CALCULI

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We consider noncommutative Riemannian geometry via the derivation based calculi approach, introduced by Michel Dubois-Violette. After presenting the motivating background and necessary definitions, we present a necessary and sufficient condition for the existence of Levi-Civita connections on free modules. We then construct Levi-Civita connections on the 2- and 3-tori. This is joint work with Joakim Arnlind.