

Principal symbols in noncommutative geometry

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The principal symbol of a pseudodifferential operator can be understood through C^* -algebraic methods. I will show some recent progress in understanding the interplay between this formalism, Connes' integral formula, and spectral truncations of spectral triples. If time permits, I will also touch upon a possible extension of these principles to non-compact manifolds. Based on joint work with Edward McDonald, and joint work in progress with Galina Levitina, Edward McDonald, Fedor Sukochev and Dmitriy Zanin."