

Elliptic Operators Associated with Groups of Quantized Canonical Transformations

mardi 30 mai 2017 10:55 (45 minutes)

Given a Lie group G of quantized canonical transformations acting on the space $L^2(M)$ over a closed manifold M , we define an algebra of so-called G -operators on $L^2(M)$. We show that to G -operators we can associate symbols in appropriate crossed products with G , introduce a notion of ellipticity and prove the Fredholm property for elliptic elements.

This framework encompasses many known elliptic theories, for instance, shift operators associated with group actions on M , transversal elliptic theory, transversally elliptic pseudodifferential operators on foliations, and Fourier integral operators associated with coisotropic submanifolds.

Orateur: M. SCHROHE, Elmar