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**MITSURU WILSON**, Universidad de los Andes, Bogota, Colombia

*Canonical group quantization of the noncommutative tori and the noncommutative spheres*

We construct a noncommutative generalization of canonical group quantization. First, I will explain how this framework of quantization is constructed by considering a Lie group  $G$  acting by symplectic transformation on a symplectic manifold  $M$  and by finding a map  $P : \mathfrak{g} \rightarrow C^\infty(M)$ . I will then explain how 2-cocycles enters into the quantization picture as obstructions. All of these will be demonstrated using the noncommutative tori and the noncommutative spheres as examples.