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**Nigel Higson\*** ([higson@math.psu.edu](mailto:higson@math.psu.edu)), Department of Mathematics, Penn State University, University Park, PA 16802. *Some noncommutative geometry problems arising from the orbit method.* Preliminary report.

Kirillov's orbit method attempts to organize the unitary representation theory of a Lie group around the symplectic-geometric concept of coadjoint orbit. It can be thought of as a correspondence principle between quantum systems (the irreducible unitary representations of a Lie group) and their classical counterparts (the orbits). As such, it is related to correspondence principles seen in noncommutative geometry, for example between operators and symbols. I shall formulate some specific questions in noncommutative geometry that arise from this relationship. (Received February 10, 2013)