

Pseudo-Differential Operators and Symmetries*Michael Ruzhansky* (Imperial College London)

THU/P1 09:00–09:50

We present an approach to pseudo-differential operators globally on compact Lie groups, without resorting to local charts. We obtain a full global symbol and global calculus. This can be done by presenting functions on the group by Fourier series obtained from the representations of the group. This yields a quantisation of pseudo-differential operators in terms of the matrix-valued symbols with dimensions of matrices in the symbol equal to the dimensions of the representations of the group. This work is joint with V. Turunen (Helsinki University of Technology).

The complete treatise can be found in the following monograph: M. Ruzhansky, V. Turunen: *Pseudo-Differential Operators and Symmetries*. Birkhäuser 2009.