ID de Contribution: **12** Type: **Non spécifié**

Patrick Poissel: A general pushforward theorem for compactly supported Fourier multipliers

jeudi 18 décembre 2025 11:30 (30 minutes)

To any sufficiently regular distribution m on a locally compact group is associated, by the mean of the Fourier transform, some sort of « differential operator with symbol m » on the dual of this group which in general is merely a quantum group. In 1970, M. Jodeit Jr. has shown that if a compactly supported distribution on $\mathbf{R}^d$ is the symbol of a continuous linear operator from $L^p(\mathbf{R}^d)$ to $L^q(\mathbf{R}^d)$, then its pushforward by the canonical homomorphism from $\mathbf{R}^d$ to $\mathbf{T}^d$ is the symbol of a continuous linear operator from $\ell^p(\mathbf{Z}^d)$ to $\ell^q(\mathbf{Z}^d)$. We propose a generalisation of this result by characterising the continuous homomorphisms of locally compact groups by which, for all exponents p and q, the pushforward of a compactly supported distribution symbol of a continuous linear operator from L^p to L^q is again the symbol of a continuous linear operator from L^p to L^q as being those which are open.