

Tensorised Ψ DO, sequential spaces, Weyl asymptotics

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Abstract.

We consider operators Ψ DO on \mathbf{T}^{n_j} (respectively \mathbf{R}^{n_j}), $j = 1, \dots, d$, $n_1 + \dots + n_d = n$, and recall the spectral asymptotics of the eigenvalues. Then we present sequential approach to some spaces of sequences and the corresponding spaces of ultradifferentiable functions. In the end we find out the dominant asymptotic in the Weyl formula for the counting function of $P(x, D) = \prod_j P(x_j, D_j)$,