Domains of type $1,1$ operators: a case for Triebel-Lizorkin spaces

Pseudo-differential operators of type $1,1$ are proved continuous from the Triebel-Lizorkin space $F_{p,1}^d$ to $L_p, 1 \leq p < p < \infty$, when of order d and this is, in general, the largest possible domain among the Besov and Triebel-Lizorkin spaces. Hörmander's condition on the twisted diagonal is extended to this framework, using a general support rule for Fourier transformed pseudo-differential operators.