

# TIME-FREQUENCY ANALYSIS OF SJÖSTRAND'S CLASS

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ABSTRACT. We investigate the properties an exotic symbol class of pseudodifferential operators, Sjöstrand's class, with methods of time-frequency analysis (phase space analysis). Compared to the classical treatment, the time-frequency approach leads to strikingly simple proofs of Sjöstrand's fundamental results and to far-reaching generalizations.

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*Key words and phrases.* Pseudodifferential operators, exotic symbols, Wigner distribution, Gabor frame, short-time Fourier transform, spectral invariance, almost diagonalization, modulation space, Wiener's Lemma.