

DILATION OF THE WEYL SYMBOL AND BALIAN-LOW THEOREM

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We prove the stability of an invertible pseudodifferential operator under small dilations of its Weyl symbol. This observation has two implications in time-frequency analysis. First, we obtain the stability of a Gabor frame under small dilations of its time-frequency sequence, previously known only for the lattice case. Secondly, we obtain a Balian-Low theorem (BLT) for Gabor frames with general time-frequency sequences. Previous BLT results for irregular time-frequency sequences were known for orthonormal bases only. (This is joint work with H. Feichtinger and N. Kaiblinger).