

Birkhoff normal forms for Fourier integral operators

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We consider the problem of constructing a microlocal logarithm and a normal form for an elliptic semi-classical Fourier integral operator near a fixed point of the corresponding canonical transformation. In [Ia] the canonical transformation was assumed to be of real hyperbolic type. In [IS] this assumption was relaxed considerably, to what we think are the natural conditions.

This is a joint work with J. Sjöstrand.

References.

[Ia] A. Iantchenko, *La forme normale de Birkhoff pour un opérateur intégral de Fourier*, Asymptotic Analysis, 17(1)(1998), 71–92.

[IS] A. Iantchenko and J. Sjöstrand, *Birkhoff normal forms for Fourier integral operators II*, preprint, 2001.

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