INVERSE SPECTRAL PROBLEMS FOR NON-SELF-ADJOINT OPERATORS, ESPECIALLY IN THE SEMICLASSICAL LIMIT

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Given a suitable h-pseudodifferential operator $P = p^w(x, hD_x)$ on $\mathbf{R}^n$ or a compact manifold, we would like to understand what information about the classical symbol p can be determined from the spectrum of P, in the semiclassical limit $h \to 0$. We are especially interested in cases when P is non-self-adjoint, with the inverse problems for resonances and for damped wave equations being important sources of motivation. See [DH12], [Hal13], [Pha] for some of the recent works on semiclassical inverse spectral problems in the non-self-adjoint setting.

REFERENCES

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