EIGENVALUE ASYMPTOTICS FOR NON-SELFADJOINT SEMICLASSICAL OPERATORS

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We study small non-selfadjoint perturbations of semiclassical selfadjoint operators with periodic Hamilton flows. In dimension 2, we give a precise description of the entire spectrum in a domain in the complex plane, directly related to the size of the perturbation. Applications include spectral asymptotics for damped wave equations on Zoll manifolds and barrier top resonances for Schrödinger operators. This is a joint work with Johannes Sjöstrand.