LOW ENERGY SCATTERING IN DIMENSION 2

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The low-energy behavior of the resolvent of a Schr "odinger operator on R d with compactly supported potential is more complicated in dimension d = 2 than in other dimensions. Focusing on two dimensions, we study behavior of several spectral and scattering quantities near 0 energy, including eigenvalues, resonances, and the scattering phase. One tool we use is a modification of an identity of Vodev, which facilitates the study of low-energy resolvents for quite general compactly supported perturbations of the Laplacian. This talk is based on joint work with Kiril Datchev and Colton Griffin, and is part of a larger project with K. Datchev.