

[Hassell, Andrew](#)

**Distorted plane waves for the 3 body Schrödinger operator.** (English) [Zbl 0953.35122](#)  
*Geom. Funct. Anal.* 10, No. 1, 1-50 (2000).

Distorted plane waves, incoming in the free region, are constructed for generalized three-body Schrödinger operators on  $\mathbb{R}^N$ , under the assumption that the ‘two-body’ potential functions are rapidly decreasing. The construction yields the form of the complete asymptotic expansion of the plane waves at infinity away from the collision planes, and gives an explicit construction and geometric characterization of the singularities of the free channel scattering matrix.

Reviewer: R.G.Newton (Bloomington)

**MSC:**

[35Q40](#) PDEs in connection with quantum mechanics  
[81U10](#)  $n$ -body potential quantum scattering theory  
[35P25](#) Scattering theory for PDEs

Cited in **1** Review  
Cited in **8** Documents

**Keywords:**

Schrödinger equation; three-body scattering

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