

Abstract

Shu Nakamura (Gakushuin University)

Long-range scattering matrix for Schrödinger-type operators

For Schrödinger operator-type pseudodifferential operators with long-range perturbations, it is shown that the modified scattering matrix is a Fourier integral operator, and it is a natural quantization of the scattering map for the corresponding modified classical scattering. The spectral properties of scattering matrices for several models are discussed, and it is shown that the scattering matrix can have absolutely continuous spectrum.

References

- [1] S. Nakamura: Long-range scattering matrix for Schrödinger-type operators. Preprint 2018: <https://arxiv.org/abs/1804.05488>.
- [2] S. Nakamura: Remarks on scattering matrices for Schrödinger operators with critically long-range perturbations. Preprint 2018: <https://arxiv.org/abs/1804.05489>.