JAROSLAV DITTRICH, Nuclear Physics Institute CAS, Rez, Czech Republic

Absolute continuity of the spectra for particles bounded to an infinite planar curve

Non-relativistic quantum particles bounded to an infinite curve in the plane by the attractive contact delta-interaction are considered. The interval between the energy of the transversal bound state and zero is shown to belong to the absolutely continuous spectrum, with possible embedded eigenvalues. The curve is assumed smooth and non-intersecting, asymptotically approaching two different half-lines. The proof is inspired by the proof of Agmon-Kato-Kuroda theorem.