

Mathematical Physics

Sommerfeld radiation condition at threshold

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We prove Besov space bounds of the resolvent at low energies in any dimension for a class of potentials that are negative and obey a virial condition with these conditions imposed at infinity only. We do not require spherical symmetry. The class of potentials includes in dimension ≥ 3 the attractive Coulomb potential. There are two boundary values of the resolvent at zero energy which we characterize by radiation conditions. These radiation conditions are zero energy versions of the well-known Sommerfeld radiation condition.

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