

Abstract Submitted  
for the DAMOP12 Meeting of  
The American Physical Society

**Analytical Solution for 3D Stationary Schrödinger Equation: application to scattering** MARZIEH ZARE, YURI ROSTOVTSEV, Center for Non-linear Science, University of North Texas — We have derived and studied the generalized Ricatti equation for the WKB approximation in three dimensions. A new approximated solution of Schrodinger equation is obtained. We show that this solution is more accurate than that of the WKB method. Writing Schrodinger differential equation in an integral form which is suitable for scattering theory, we discuss some applications of the obtained results, in particular, to the scattering problem.

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None

Date submitted: 20 Jan 2012

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