Document	**For copies of Journal Articles**, please contact the Publisher or your local public or university library and refer to the information in the Resource Relation field. **For copies of other documents**, please see the Availability, Publisher, Research Organization, Resource Relation and/or Author (affiliation information) fields and/or Document Availability.
Title	Eigenvalues obtained by perturbation exact and numerical methods for short-range potentials. I
Creator/Author	Abdulmomen, M.A. ; Aly, H.H. ; Mansour, H.M.M.
Publication Date	1983 Jan 01
OSTI Identifier	OSTI ID: 5943928
Other Number(s)	Journal ID: CODEN: AGJRE
Resource Type	Journal Article
Resource Relation	Journal Name: Arab Gulf J. Sci. Res.; (Saudi Arabia); Journal Volume: 1:2
Research Org	King Abdulaziz Univ., Jeddah, Saudi Arabia
Subject	99 GENERAL AND MISCELLANEOUS//MATHEMATICS, COMPUTING, AND INFORMATION SCIENCE; SCHROEDINGER EQUATION; NUMERICAL SOLUTION; PERTURBATION THEORY; WAVE EQUATIONS; EIGENVALUES; QUANTUM MECHANICS; DIFFERENTIAL EQUATIONS; EQUATIONS; MECHANICS; PARTIAL DIFFERENTIAL EQUATIONS
Description/Abstract	We study various short range potentials and calculate their eigenvalues for both s- and p-waves using a wide range of coupling constants. We obtain these eigenvalues, first by perturbation methods, then compare these values with the ones obtained numerically and when it is possible by exact methods. Good agreements are obtained for s-waves eigenvalues and the implications for higher angular momenta eigenvalues are discussed.
Country of Publication	Saudi Arabia
Language	English
Format	Medium: X; Size: Pages: 521-534
System Entry Date	2008 Feb 07