

Prof. ALTUĞ ARDA

Personal Information

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Education Information

Doctorate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Mühendisliği Bölümü, Turkey 1996 - 2003

Under Graduate, Hacettepe Üniversitesi, Eğitim Fakültesi, Fizik Eğitimi Anabilimdalı, Turkey 1988 - 1993

Foreign Languages

English, B1 Intermediate

German, B1 Intermediate

Research Areas

Physics, Atomic and Molecular Physics, Atomic and Molecular Interactions, General Physics, Mathematical Methods in Physics, Basic Particles and Areas, General Theory of Particles and Fields, Natural Sciences

Academic Titles / Tasks

Professor, Hacettepe Üniversitesi, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi, 2017 - Continues

Jury Memberships

Appointment Academic Staff, profesörlük kadrosuna atama, Mersin üniversitesi, January, 2018

Associate Professor Exam, doçentlik yayın aşaması, yök doçentlik jürisi, November, 2016

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Bound-state solutions of the Dirac equation for the Kratzer potential with pseudoscalar-Coulomb term**
Arda A., Sever R.
EUROPEAN PHYSICAL JOURNAL PLUS, vol.134, 2019 (Journal Indexed in SCI)
- II. **Analytical solution of two-body spinless Salpeter equation for Hellmann potential**
Arda A.
INDIAN JOURNAL OF PHYSICS, vol.91, pp.903-907, 2017 (Journal Indexed in SCI)
- III. **Feinberg- Horodecki Equation with Pöschl-Teller Potential: Space-like Coherent States**
Arda A., Sever R.
ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.72, pp.541-545, 2017 (Journal Indexed in SCI)

- IV. **Klein-Gordon equation for a charged particle in space-varying electromagnetic fields-A systematic study via the Laplace transform**
 DAS T., Arda A.
 CHINESE JOURNAL OF PHYSICS, vol.55, pp.310-317, 2017 (Journal Indexed in SCI)
- V. **Thermodynamic quantities for the Klein-Gordon equation with a linear plus inverse-linear potential: Biconfluent Heun functions**
 Arda A., Tezcan C., Sever R.
 PRAMANA-JOURNAL OF PHYSICS, vol.88, 2017 (Journal Indexed in SCI)
- VI. **Solution of Effective-Mass Dirac Equation with Scalar-Vector and Pseudoscalar Terms for Generalized Hulthen Potential**
 Arda A.
 ADVANCES IN HIGH ENERGY PHYSICS, 2017 (Journal Indexed in SCI)
- VII. **Exact Solutions of Effective-Mass Dirac-Pauli Equation with an Electromagnetic Field**
 Arda A., Sever R.
 FEW-BODY SYSTEMS, vol.58, 2017 (Journal Indexed in SCI)
- VIII. **Schrodinger equation with a non-central potential: Some statistical quantities**
 Arda A., Tezcan C., Sever R.
 EUROPEAN PHYSICAL JOURNAL PLUS, vol.131, 2016 (Journal Indexed in SCI)
- IX. **Klein-Gordon and Dirac Equations with Thermodynamic Quantities**
 Arda A., Tezcan C., Sever R.
 FEW-BODY SYSTEMS, vol.57, pp.93-101, 2016 (Journal Indexed in SCI)
- X. **Effective Mass Quantum Systems with Displacement Operator: Inverse Square Plus Coulomb-Like Potential**
 Arda A., Sever R.
 FEW-BODY SYSTEMS, vol.56, pp.697-702, 2015 (Journal Indexed in SCI)
- XI. **Approximate Solutions of Dirac Equation with Hyperbolic-Type Potential**
 Arda A., Sever R.
 COMMUNICATIONS IN THEORETICAL PHYSICS, vol.64, pp.269-273, 2015 (Journal Indexed in SCI)
- XII. **Exact Analytical Solution of the N-Dimensional Radial Schrodinger Equation with Pseudoharmonic Potential via Laplace Transform Approach**
 DAS T., Arda A.
 ADVANCES IN HIGH ENERGY PHYSICS, 2015 (Journal Indexed in SCI)
- XIII. **PT-/non-PT-symmetric and non-Hermitian Hellmann potential: approximate bound and scattering states with any l-values**
 Arda A., Sever R.
 PHYSICA SCRIPTA, vol.89, 2014 (Journal Indexed in SCI)
- XIV. **Step-up and Step-down Operators of a Two-Term Molecular Potential Via Nikiforov-Uvarov Method**
 Arda A., Sever R.
 FEW-BODY SYSTEMS, vol.55, pp.265-271, 2014 (Journal Indexed in SCI)
- XV. **Pseudospin and Spin Symmetric Solutions of the Dirac Equation: Hellmann Potential, Wei-Hua Potential, Varshni Potential**
 Arda A., Sever R.
 ZEITSCHRIFT FUR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.69, pp.163-172, 2014 (Journal Indexed in SCI)
- XVI. **Approximate Analytical Solutions of the Dirac Equation for Yukawa Potential Plus Tensor Interaction with Any kappa-Value**
 Arda A., Sever R.
 FEW-BODY SYSTEMS, vol.54, pp.1829-1837, 2013 (Journal Indexed in SCI)
- XVII. **Scattering of a spinless particle by an asymmetric Hulthen potential within the effective mass formalism**
 Aydogdu O., Arda A., Sever R.

- JOURNAL OF MATHEMATICAL PHYSICS, vol.53, 2012 (Journal Indexed in SCI)
- XVIII. EXACT SPIN AND PSEUDO-SPIN SYMMETRIC SOLUTIONS OF THE DIRAC-KRATZER PROBLEM WITH A TENSOR POTENTIAL VIA LAPLACE TRANSFORM APPROACH**
Arda A., Sever R.
MODERN PHYSICS LETTERS A, vol.27, 2012 (Journal Indexed in SCI)
- XIX. Approximate analytical solutions of a two-term diatomic molecular potential with centrifugal barrier**
Arda A., Sever R.
JOURNAL OF MATHEMATICAL CHEMISTRY, vol.50, pp.1920-1930, 2012 (Journal Indexed in SCI)
- XX. Exact Solutions of the Morse-like Potential, Step-Up and Step-Down Operators via Laplace Transform Approach**
Arda A., Sever R.
COMMUNICATIONS IN THEORETICAL PHYSICS, vol.58, pp.27-30, 2012 (Journal Indexed in SCI)
- XXI. Non-central potentials, exact solutions and Laplace transform approach**
Arda A., Sever R.
JOURNAL OF MATHEMATICAL CHEMISTRY, vol.50, pp.1484-1494, 2012 (Journal Indexed in SCI)
- XXII. Exact solutions of the Schrodinger equation via Laplace transform approach: pseudoharmonic potential and Mie-type potentials**
Arda A., Sever R.
JOURNAL OF MATHEMATICAL CHEMISTRY, vol.50, pp.971-980, 2012 (Journal Indexed in SCI)
- XXIII. Effective-mass Dirac equation for Woods-Saxon potential: Scattering, bound states, and resonances**
Aydogdu O., Arda A., Sever R.
JOURNAL OF MATHEMATICAL PHYSICS, vol.53, 2012 (Journal Indexed in SCI)
- XXIV. Effective-mass Klein-Gordon-Yukawa problem for bound and scattering states**
Arda A., Sever R.
JOURNAL OF MATHEMATICAL PHYSICS, vol.52, 2011 (Journal Indexed in SCI)
- XXV. Scattering and bound state solutions of the asymmetric Hulthen potential**
Arda A., Aydogdu O., Sever R.
PHYSICA SCRIPTA, vol.84, 2011 (Journal Indexed in SCI)
- XXVI. Bound State Solutions of Schrodinger Equation for Generalized Morse Potential with Position-Dependent Mass**
Arda A., Sever R.
COMMUNICATIONS IN THEORETICAL PHYSICS, vol.56, pp.51-54, 2011 (Journal Indexed in SCI)
- XXVII. Effective-mass Klein-Gordon equation for non-PT/non-Hermitian generalized Morse potential**
Arda A., Sever R.
PHYSICA SCRIPTA, vol.82, 2010 (Journal Indexed in SCI)
- XXVIII. Scattering of the Woods-Saxon potential in the Schrodinger equation**
Arda A., Aydogdu O., Sever R.
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, vol.43, 2010 (Journal Indexed in SCI)
- XXIX. Approximate analytical solutions of the effective mass Dirac equation for the generalized Hulth,n potential with any kappa-value**
Arda A., Sever R., Tezcan C.
CENTRAL EUROPEAN JOURNAL OF PHYSICS, vol.8, pp.843-849, 2010 (Journal Indexed in SCI)
- XXX. New exact solution of the one-dimensional Dirac equation for the Woods-Saxon potential within the effective mass case**
PANELLA O., BIONDINI S., Arda A.
JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL, vol.43, 2010 (Journal Indexed in SCI)
- XXXI. Effective Mass Schrodinger Equation via Point Canonical Transformation**
Arda A., Sever R.
CHINESE PHYSICS LETTERS, vol.27, 2010 (Journal Indexed in SCI)
- XXXII. Effective Mass Dirac-Morse Problem with any kappa-value**
Arda A., Sever R., Tezcan C., Akcay H.

- CHINESE PHYSICS LETTERS, vol.27, 2010 (Journal Indexed in SCI)
- XXXIII. **Approximate Pseudospin and Spin Solutions of the Dirac Equation for a Class of Exponential Potentials**
Arda A., Sever R., Tezcan C.
CHINESE JOURNAL OF PHYSICS, vol.48, pp.27-37, 2010 (Journal Indexed in SCI)
- XXXIV. **Analytical Solutions to the Klein-Gordon Equation with Position-Dependent Mass for q-Parameter Poschl-Teller Potential**
Arda A., Sever R., Tezcan C.
CHINESE PHYSICS LETTERS, vol.27, 2010 (Journal Indexed in SCI)
- XXXV. **Approximate analytical solutions of the pseudospin symmetric Dirac equation for exponential-type potentials**
Arda A., Sever R., Tezcan C.
ANNALEN DER PHYSIK, vol.18, pp.736-746, 2009 (Journal Indexed in SCI)
- XXXVI. **Exact Solutions of Effective Mass Dirac Equation with Non-PT-Symmetric and Non-Hermitian Exponential-type Potentials**
Arda A., Sever R.
CHINESE PHYSICS LETTERS, vol.26, 2009 (Journal Indexed in SCI)
- XXXVII. **APPROXIMATE I-STATE SOLUTIONS TO THE KLEIN-GORDON EQUATION FOR MODIFIED WOODS-SAXON POTENTIAL WITH POSITION DEPENDENT MASS**
Arda A., Sever R.
INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.24, pp.3985-3994, 2009 (Journal Indexed in SCI)
- XXXVIII. **APPROXIMATE I-STATE SOLUTIONS OF A SPIN-0 PARTICLE FOR WOODS-SAXON POTENTIAL**
Arda A., Sever R.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.20, pp.651-665, 2009 (Journal Indexed in SCI)
- XXXIX. **Approximate Solution of the Effective Mass Klein-Gordon Equation for the Hulthen Potential with Any Angular Momentum**
Arda A., Sever R.
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.48, pp.945-951, 2009 (Journal Indexed in SCI)
- XL. **Approximate analytical solutions of the Klein-Gordon equation for the Hulthen potential with the position-dependent mass**
Arda A., Sever R., Tezcan C.
PHYSICA SCRIPTA, vol.79, 2009 (Journal Indexed in SCI)
- XLI. **Bound states of the Klein-Gordon equation for Woods-Saxon potential with position dependent mass**
Arda A., Sever R.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.19, pp.763-773, 2008 (Journal Indexed in SCI)
- XLII. **Quantum mechanical treatment of the problem of constraints in non-extensive formalism revisited**
BAGCI G. B. , Arda A., Sever R.
MODERN PHYSICS LETTERS B, vol.21, pp.981-985, 2007 (Journal Indexed in SCI)
- XLIII. **On the problem of constraints in nonextensive formalism: A quantum mechanical treatment**
Bagci G. B. , Arda A., Sever R.
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.20, pp.2085-2092, 2006 (Journal Indexed in SCI)
- XLIV. **The forward-backward asymmetry in the $B \rightarrow \pi l^{(+)}l^{(-)}$ decay**
Arda A.
MODERN PHYSICS LETTERS A, vol.20, pp.2925-2935, 2005 (Journal Indexed in SCI)
- XLV. **Sensitivity of the zero position of the forward-backward asymmetry to new physics effects in the $B \rightarrow K^* \mu^{(+)} \mu^{(-)}$ decay**
Arda A., BOZ M.
PHYSICAL REVIEW D, vol.66, 2002 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Non-Relativistic Phase Shifts via Laplace Transform Approach**
ARDA A., DAS T.
Bulgarian Journal of Physics, vol.44, pp.221-230, 2017 (Refereed Journals of Other Institutions)
- II. **Triangular quantum profiles: transmission probability and energy spectrum**
Arda A.
TURKISH JOURNAL OF PHYSICS, vol.41, pp.72-80, 2017 (Journal Indexed in ESCI)
- III. **The Zero Position of the Forward-Backward Asymmetry in the $B \rightarrow K\ell+\ell^-$ Decay with New Physics Effects**
ARDA A.
TURKISH JOURNAL OF PHYSICS, pp.349, 2004 (Other Refereed National Journals)
- IV. **The Hypervirial Pade Summation Method Applied to the Anharmonic Oscillator**
ARDA A.
Turkish Journal of Physics, pp.223, 2004 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Relativistic Approximate Solutions for a Two-Term Potential: Riemann-Type Equation**
ARDA A.
International Conference on Quantum Science and Applications (ICQSA), Eskişehir, Turkey, 25 - 27 May 2016, vol.766

Supported Projects

ARDA A., Project Supported by Higher Education Institutions, Schrödinger ve Feinberg-Horodecki Denklemlerinin Bazı Potansiyel Alanları İçin Analitik Çözümleri, 2016 - 2017

Scientific Refereeing

Modern Physics Letters A, SCI Journal, June 2018
Advances in High Energy physics, SCI Journal, June 2018
Sri Lanken Journal of Physics, Other Indexed Journal, January 2018
Modern Physics Letters A, SCI Journal, January 2018

Invited Congress and Symposium Activities

International Conference on Quantum Science and Applications, Attendee, Eskişehir, Turkey, 2016
The XXIst International Conference on Integrable Systems and Quantum Symmetries, Attendee, Praha, Czech Republic, 2013

Citations

Total Citations (WOS):506
h-index (WOS):14