

Assoc. Prof. FATİH BULUT

Personal Information

Email: fatih.bulut@inonu.edu.tr
Web: <https://avesis.inonu.edu.tr/fatih.bulut>

International Researcher IDs

ScholarID: 6WU06DYAAAAJ
ORCID: 0000-0001-6603-2468
ScopusID: 57194322419
Yoksis Researcher ID: 44885

Education Information

Doctorate, State University of New York at Buffalo, Faculty Of Arts And Sciences, Physics, United States Of America 2005 - 2008
Postgraduate, The University of Iowa, Faculty Of Arts And Sciences, Physics, United States Of America 2002 - 2005
Undergraduate, Ankara University, Fen Edebiyat Fakültesi, Fizik Bölümü, Turkey 1996 - 2000

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Three-Particle Model of the Pion Nucleon System, State University of New York at Buffalo, 2008
Postgraduate, Two Particle Scattering with Wavelets, The University of Iowa, 2005

Research Areas

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

Academic Titles / Tasks

Associate Professor, Inonu University, Fen-Edebiyat Fakültesi, Fizik, 2018 - Continues
Assistant Professor, Inonu University, Fen-Edebiyat Fakültesi, Fizik, 2009 - 2018

Academic and Administrative Experience

Inonu University, 2016 - Continues

Courses

KUANTUM MEKANIĞI II, Undergraduate Minor, 2022-2023
Kuantum Mekaniği, Undergraduate, 2022-2023
GENEL FİZİK 2, Undergraduate, 2022-2023
Quantum Mechanics, Undergraduate, 2022 - 2023, 2021 - 2022
Genel Programlama II, Undergraduate, 2022-2023
Genel Fizik I, Undergraduate, 2022-2023
General Physics 2, Undergraduate, 2021 - 2022, 2016 - 2017
General Physics I, Undergraduate, 2021 - 2022
Elementary Particle Physics, Postgraduate, 2020 - 2021, 2018 - 2019
KUANTUM MEKANIĞI I, Undergraduate Double Major, 2021-2022
Elektromagnetik Teori I, Undergraduate Double Major, 2020-2021
Temel Parçacık Fiziği, Undergraduate Double Major, 2020-2021
Electromagnetic Theory I, Postgraduate, 2019 - 2020
Quantum Mechanics II, Doctorate, 2019 - 2020
TEMEL PARÇACIK FİZİĞİ, Undergraduate Double Major, 2016-2017
Genel Fizik I, Undergraduate Double Major, 2016-2017
Temel Parçacık Fiziği, Undergraduate Double Major, 2016-2017
GENEL FİZİK 2, Undergraduate, 2015-2016
TEMEL PARÇACIK FİZİĞİ, Undergraduate Double Major, 2015-2016
GENEL FİZİK 2, Undergraduate, 2014-2015
GENEL FİZİK I, Undergraduate, 2014-2015
ELEKTROMANYETİK TEORİ 2, Undergraduate Minor, 2014-2015
TEMEL PARÇACIK FİZİĞİ, Undergraduate Double Major, 2013-2014
GENEL FİZİK I, Undergraduate, 2013-2014
GENEL FİZİK 2, Undergraduate, 2013-2014
KUANTUM MEKANIĞI II, Undergraduate Minor, 2013-2014
YÜKSEK ENERJİ FİZİĞİ, Undergraduate Double Major, 2013-2014
KUANTUM MEKANIĞI II, Undergraduate Minor, 2012-2013
GENEL FİZİK 2, Undergraduate, 2012-2013
GENEL FİZİK I, Undergraduate, 2012-2013
GENEL PROGRAMLAMA I, Undergraduate, 2012-2013
GENEL PROGRAMLAMA 2, Undergraduate, 2012-2013
GENEL FİZİK I, Undergraduate, 2012-2013
ELEKTROMANYETİK TEORİ 2, Undergraduate Minor, 2012-2013
GENEL FİZİK I, Undergraduate, 2011-2012
ELEKTROMANYETİK TEORİ 2, Undergraduate Minor, 2011-2012
KUANTUM MEKANIĞI I, Undergraduate Double Major, 2011-2012
GENEL PROGRAMLAMA 2, Undergraduate, 2011-2012
GENEL FİZİK 2, Undergraduate, 2011-2012
GENEL PROGRAMLAMA I, Undergraduate, 2011-2012
BİYOLOJİ İÇİN FİZİK, Undergraduate, 2011-2012
YÜKSEK ENERJİ FİZİĞİ, Undergraduate Double Major, 2011-2012

Advising Theses

Bulut F., Yüksek enerji fiziğinde kullanılan simülasyon teknikleri, Postgraduate, M.AYYILDIZ(Student), 2016
ESEN A., BULUT F., Lineer olmayan kısmi türevli denklemlerinhaar dalgacıkları ile nümerik çözümleri, Doctorate,
Ö.ORUÇ(Student), 2016

Bulut F., D mezon bozunumunda CP bozulumu, Postgraduate, F. ALTIN(Student), 2014

Bulut F., Investigation of hadronic decays by Dalitz plot analysis, Postgraduate, M. BULDU(Student), 2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Optimization of Electrochemical Pre-Sodiation parameters of Na-ion full cells for stable SEI formation: Hard carbon rods from waste firefighter suits
Yalman E., Altundag S., Aydin M. G., Onal Y., Depci T., Tekbas H., Bulut F., Yaşar S., Altın S.
ENERGY TECHNOLOGY, vol.0, no.0, pp.2300014, 2023 (SCI-Expanded)
- II. Metal-Organic Framework Materials for Electrochemical Supercapacitors
Cao Z., Momen R., Tao S., Xiong D., Song Z., Xiao X., Deng W., Hou H., YAŞAR S., Altın S., et al.
NANO-MICRO LETTERS, vol.14, no.1, 2022 (SCI-Expanded)
- III. Pd-NHC complex catalyzed C-H bond activation reactions of caffeine and 2-isobutylthiazole
Bugday N., Khan S., YAŞAR S., BULUT F., Boulebd H., KARABIYIK H., KARABIYIK H., ÖZ E., Rehman A. U., ÖZDEMİR İ.
MOLECULAR CATALYSIS, vol.530, 2022 (SCI-Expanded)
- IV. <p>Higher order Haar wavelet method integrated with strang splitting for solving regularized long wave equation</p>
BULUT F., Oruc O., ESEN A.
MATHEMATICS AND COMPUTERS IN SIMULATION, vol.197, pp.277-290, 2022 (SCI-Expanded)
- V. Boron-doped porous carbon material derived from ZIF-11: Investigation of cotton fabric supercapacitor and Li-ion battery performances
Bugday N., ALTIN S., BULUT F., ALTIN E., YAŞAR S.
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.46, no.6, pp.7732-7748, 2022 (SCI-Expanded)
- VI. Highly accurate numerical scheme based on polynomial scaling functions for equal width equation
Oruc O., ESEN A., BULUT F.
WAVE MOTION, vol.105, 2021 (SCI-Expanded)
- VII. Numerical investigation of dynamic Euler-Bernoulli equation via 3-Scale Haar wavelet collocation method
Oruc O., ESEN A., BULUT F.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.50, no.1, pp.159-179, 2021 (SCI-Expanded)
- VIII. A Strang Splitting Approach Combined with Chebyshev Wavelets to Solve the Regularized Long-Wave Equation Numerically
Oruc O., ESEN A., BULUT F.
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.17, no.5, 2020 (SCI-Expanded)
- IX. The production of a low cost printing device for energy storage systems and the application for supercapacitors
Altin S., Bulut F., Yasar S.
JOURNAL OF ENERGY STORAGE, vol.25, 2019 (SCI-Expanded)
- X. A UNIFIED FINITE DIFFERENCE CHEBYSHEV WAVELET METHOD FOR NUMERICALLY SOLVING TIME FRACTIONAL BURGERS' EQUATION
Oruc O., ESEN A., BULUT F.
DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS-SERIES S, vol.12, no.3, pp.533-542, 2019 (SCI-Expanded)
- XI. A haar wavelet approximation for two-dimensional time fractional reaction-subdiffusion equation
Oruc O., ESEN A., BULUT F.
ENGINEERING WITH COMPUTERS, vol.35, no.1, pp.75-86, 2019 (SCI-Expanded)
- XII. Chebyshev Wavelet Method for Numerical Solutions of Coupled Burgers' Equation
Oruc O., Bulut F., Esen A.
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.48, no.1, pp.1-16, 2019 (SCI-Expanded)
- XIII. Multi-scale Methods in Quantum Field Theory
Polyzou W. N., Michlin T., BULUT F.

- FEW-BODY SYSTEMS, vol.59, no.3, 2018 (SCI-Expanded)
- XIV. **Multiresolution decomposition of quantum field theories using wavelet bases**
 Michlin T., Polyzou W. N., BULUT F.
 PHYSICAL REVIEW D, vol.95, no.9, 2017 (SCI-Expanded)
- XV. **Numerical solution of the KdV equation by Haar wavelet method**
 ORUC O., bulut F., ESEN A.
 PRAMANA-JOURNAL OF PHYSICS, vol.87, no.6, 2016 (SCI-Expanded)
- XVI. **Numerical Solutions of Regularized Long Wave Equation By Haar Wavelet Method**
 ORUC O., BULUT F., ESEN A.
 MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.13, no.5, pp.3235-3253, 2016 (SCI-Expanded)
- XVII. **A Haar wavelet collocation method for coupled nonlinear Schrodinger-KdV equations**
 ORUC O., ESEN A., BULUT F.
 INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.27, no.9, 2016 (SCI-Expanded)
- XVIII. **A unified approach for the numerical solution of time fractional Burgers' type equations**
 ESEN A., BULUT F., ORUC O.
 EUROPEAN PHYSICAL JOURNAL PLUS, vol.131, no.4, 2016 (SCI-Expanded)
- XIX. **Altered isotope charge distribution of acetylcholine neurotransmitter and Myasthenia Gravis**
 BAYRİ A., ÜNAL S., ALTIN S., BULUT F., DAYANC B. E.
 MEDICAL HYPOTHESES, vol.89, pp.84-88, 2016 (SCI-Expanded)
- XX. **An alternative approach to compute wavelet connection coefficients**
 BULUT F.
 APPLIED MATHEMATICS LETTERS, vol.53, pp.1-9, 2016 (SCI-Expanded)
- XXI. **Numerical Solutions of Fractional System of Partial Differential Equations By Haar Wavelets**
 BULUT F., ORUC Ö., ESEN A.
 CMES-COMPUTER MODELING IN ENGINEERING & SCIENCES, vol.108, no.4, pp.263-284, 2015 (SCI-Expanded)
- XXII. **A Haar wavelet-finite difference hybrid method for the numerical solution of the modified Burgers' equation**
 ORUC Ö., BULUT F., ESEN A.
 JOURNAL OF MATHEMATICAL CHEMISTRY, vol.53, no.7, pp.1592-1607, 2015 (SCI-Expanded)
- XXIII. **Wavelet Methods in Field Theory Wavelets in Field Theory**
 Polyzou W., BULUT F.
 FEW-BODY SYSTEMS, vol.55, pp.561-566, 2014 (SCI-Expanded)
- XXIV. **Wavelets in field theory**
 BULUT F., Polyzou W. N.
 PHYSICAL REVIEW D, vol.87, no.11, 2013 (SCI-Expanded)
- XXV. **Three-particle model of the pion-nucleon system**
 Fuda M. G., BULUT F.
 PHYSICAL REVIEW C, vol.80, no.2, 2009 (SCI-Expanded)
- XXVI. **Wavelet methods in the relativistic three-body problem**
 Bulut F., Polyzou W.
 PHYSICAL REVIEW C, vol.73, no.2, 2006 (SCI-Expanded)

Articles Published in Other Journals

- I. **Low-Cost 3D-Printing Device Production for Miniature Energy Storage 2 Systems**
 ALTIN S., BULUT F.
 Chemistry Research Journal, vol.4, no.4, pp.1-4, 2019 (Peer-Reviewed Journal)
- II. **A numerical treatment based on Haar wavelets for coupled KdV equation**
 Oruç Ö., Bulut F., Esen A.
 An International Journal of Optimization and Control: Theories Applications (IJOCTA), vol.7, no.2, pp.195, 2017

Refereed Congress / Symposium Publications in Proceedings

- I. A 3-SCALE HAAR WAVELET COLLOCATIONMETHOD FOR SOLVING PDEs
BULUT F., Oruç Ö., ESEN A.
2nd International conference on computational mathematics and engineering sciences, İstanbul, Turkey, 20 - 22 May 2017
- II. CHEBYSHEV WAVELET METHOD FORNUMERICAL SOLUTIONS OF PDEs
ESEN A., Oruç Ö., BULUT F.
2nd International conference on computational mathematics and engineering sciences, İstanbul, Turkey, 20 - 22 May 2017
- III. A numerical scheme based on Haar wavelets for coupled nonlinear Schrodinger equations
Oruç Ö., ESEN A., BULUT F.
9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015
- IV. Numerical solutions of Huxley equation by Haar Wavelet Method
BULUT F., ESEN A., Oruç Ö.
Boundary Value Problems Workshop, 12 - 13 March 2014
- V. Dalitz Grafiği Analizi İle Hadronik Bozunumların İncelenmesi
BULUT F., BULDU M.
UPHUK V, 7 - 09 September 2013
- VI. Dalitz Plot Analizi
BULUT F.
B-Kuarklı ve C-Kuarklı Mezonlar Çalıştayı 2012, Turkey, 16 - 18 March 2012
- VII. Dalitz Plot
BULUT F.
X. YUUP ÇALIŞTAYI, Turkey, 9 - 11 December 2011
- VIII. Three particle model of the pion nucleon system
BULUT F., MICHAEL G F.
UPHUK 4, 30 August - 01 September 2010
- IX. Cp Bozulması
BULUT F.
IX. YUUP ÇALIŞTAYI, Turkey, 3 - 05 May 2010

Supported Projects

- ALTIN S., ALTUNDAĞ S., BULUT F., Project Supported by Higher Education Institutions, NaMn2O4 katot üretimi ve batarya performanslarının araştırılması, 2022 - 2023
- ESEN A., BULUT F., ORUÇ Ö., Project Supported by Higher Education Institutions, Lineer olmayan kısmı diferansiyel denklemlerin Haar dalgacıkları ve Yüksek mertebeli Haar dalgacıkları yöntemleri ile çözümleri, 2021 - 2022
- BULUT F., ALTIN S., YAŞAR S., ÖREN İ. C., Project Supported by Higher Education Institutions, Portable çok amaçlı non-manyetik mekanik karıştırıcı ürün geliştirme, 2018 - 2019
- BAYRİ A., BULUT F., ALTIN S., ALTIN E., ADIGÜZEL H. İ., Project Supported by Higher Education Institutions, Na-iyon piller için demir-krom içeren elektrot geliştirilmesi, 2018 - 2019
- ALTIN S., ÖNAL Y., DEMİREL S., BAYRİ A., YAŞAR S., ALTIN E., BULUT F., Project Supported by Higher Education Institutions, Şarjedilebilir mini/mikro-pil üretimi ve elektrokimyasal performanslarının belirlenmesi, 2017 - 2019

Metrics

Publication: 37

Citation (WoS): 298

Citation (Scopus): 114

H-Index (WoS): 10

H-Index (Scopus): 7