

Assoc. Prof. FATİH BULUT

Personal Information

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International Researcher IDs

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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

Quantum Mechanics, Undergraduate, 2022 - 2023, 2021 - 2022
General Physics 2, Undergraduate, 2021 - 2022, 2016 - 2017
General Physics I, Undergraduate, 2021 - 2022
Elementary Particle Physics, Postgraduate, 2020 - 2021, 2018 - 2019
Electromagnetic Theory I, Postgraduate, 2019 - 2020
Quantum Mechanics II, Doctorate, 2019 - 2020

Advising Theses

Bulut F., Yüksek enerji fiziğinde kullanılan simülasyon teknikleri, Postgraduate, M.AYYILDIZ(Student), 2016
BULUT F., ESEN A., Lineer olmayan kısmi türevli denklemlerin haar 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., Aydın 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-isobuthylthiazole**
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. **Higher order Haar wavelet method integrated with strang splitting for solving regularized long wave equation**
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 (Peer-Reviewed Journal)

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 FOR NUMERICAL 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 performansların araştırılması, 2022 - 2023

ESEN A., BULUT F., ORUÇ Ö., Project Supported by Higher Education Institutions, Lineer olmayan kısmi diferansiyel denklemlerin Haar dalgacıları ve Yüksek mertebeli Haar dalgacıları 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): 304

Citation (Scopus): 114

H-Index (WoS): 10

H-Index (Scopus): 7