

DURGUN DURAN

ASSOC. PROF.

Email : durgun.duran@bozok.edu.tr

Other Email : durgunduran@hotmail.com

Office Phone : [+90 354 242 1021](tel:+903542421021) Extension: 2601

Fax Phone : [+90 354 242 1022](tel:+903542421022)

Address : YOZGAT BOZOK ÜNİVERSİTESİ FEN EDEBİYAT
FAKÜLTESİ FİZİK BÖLÜMÜ ATATÜRK YOLU 7. KM 66100
MERKEZ/YOZGAT

International Researcher IDs

ScholarID: WTWf9qAAAAAJ

ORCID: 0000-0002-9458-3715

Publons / Web Of Science ResearcherID: AAZ-4638-2020

ScopusID: 56659246700

Yoksis Researcher ID: 31299



Learning Knowledge

Undergraduate 2019 - Continues	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Yabancı Diller Bölümü, Turkey
Doctorate 2012 - 2019	Ankara University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey
Postgraduate 2008 - 2011	Ankara University, Fen Bilimleri Enstitüsü, Fizik (Yl) (Tezli), Turkey
Undergraduate 2003 - 2008	Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey

Certificates, Courses and Trainings

Science and Technology Policy, Tübitak Bilim Söyleşileri , TÜBİTAK, 2023

Science and Technology Policy, TÜBİTAK Bilim Söyleşileri, TÜBİTAK, 2023

Science and Technology Policy, TÜBİTAK Bilim Söyleşileri, TÜBİTAK, 2023

Science and Technology Policy, TÜBİTAK Bilim Söyleşileri , TÜBİTAK , 2022

Science and Technology Policy, TÜBİTAK Bilim Söyleşileri , TÜBİTAK , 2022

Dissertations

Doctorate, Detection of quantum entanglement: Positive maps and entanglement witnesses, Ankara University, Fen Bilimleri Enstitüsü, 2018

Postgraduate, Quantum entanglement and its applications in quantum information theory, Ankara University, Fen Bilimleri Enstitüsü, 2011

Academic Titles / Tasks

Associate Professor 2022 - Continues	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik
Research Assistant PhD 2018 - 2022	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik
Research Assistant 2017 - 2019	Yozgat Bozok University, Bilim ve Teknoloji Uygulama ve Araştırma Merkezi, -
Research Assistant 2008 - 2018	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik

Supported Projects

1. Duran D., Türkmen A., Çelebi G., TUBITAK Project, Kuantum Yang-Baxter Denklemlerinin Üniter Çözümlerinin Açık Kuantum Sistemleri Kapsamında İncelenmesi ve Kuantum Dinamiğin Tasviri, 2022 - 2025

Scholarships

2211-C Öncelikli Alanlara Yönelik Burs Programı, TUBITAK, 2014 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Dynamics of the quantum coherence under the concatenation of Yang–Baxter matrix**
Duran D.
QUANTUM INFORMATION PROCESSING, vol.21, no.2, pp.50, 2022 (SCI-Expanded)
2. **Measurement of 'closeness' and Distinguishability of the Quantum States in Yang-Baxter Systems**
DURAN D.
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.60, no.8, pp.3087-3102, 2021 (SCI-Expanded)
3. **Action in Hamiltonian Models Constructed by Yang-Baxter Equation: Entanglement and Measures of Correlation**
DURAN D.
CHINESE JOURNAL OF PHYSICS, vol.68, pp.426-435, 2020 (SCI-Expanded)
4. **Dynamics of quantum Fisher information in the two-qubit systems constructed from the Yang-Baxter matrices**
DURAN D.
QUANTUM INFORMATION PROCESSING, vol.19, no.9, 2020 (SCI-Expanded)
5. **Enhancement of the Quantum Parameter Estimation in Yang-Baxter Systems**
DURAN D.
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.59, no.7, pp.2091-2100, 2020 (SCI-Expanded)
6. **Controlling the loss of quantum correlations via quantum memory channels**
DURAN D., VERÇİN A.
QUANTUM INFORMATION PROCESSING, vol.17, no.7, 2018 (SCI-Expanded)
7. **A NEW APPROACH FOR SOLITON SOLUTIONS OF RLW EQUATION AND (1+2)-DIMENSIONAL NONLINEAR SCHRÖDINGER'S EQUATION**
Filiz A., Sönmezoğlu A., Ekici M., Duran D.

MATHEMATICAL REPORTS, vol.17, no.1, pp.43-56, 2015 (SCI-Expanded)

8. **Entanglement detection via continuous quantum channels**

DURAN D., VERCIN A., YILMAZ S.

PHYSICAL REVIEW A, vol.90, no.4, 2014 (SCI-Expanded)

Articles Published in Other Journals

1. **Preserving quantum correlations via decoherence channels with memory**

Duran D.

Eskişehir Technical University Journal of Science and Technology B- Theoretical Sciences, vol.9, no.2, pp.77-92, 2021 (Peer-Reviewed Journal)

2. **Jaynes-Cummings Modelinde Çiftlenim Sabitinin Kuantum Tahmini**

Duran D.

Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.6, no.2, pp.530-538, 2019 (Peer-Reviewed Journal)

3. **Exact solutions of the ZK MEWequation and the Davey Stewartson equation**

Elsayed E M Z., FİLİZ A., EKİCİ M., SÖNMEZOĞLU A., DURAN D.

International Journal of Applied Mathematical Research, vol.3, no.2, pp.122-132, 2014 (Peer-Reviewed Journal)

4. **Constructing of exact solutions to the 2+1 dimensional breaking soliton equations by the multiple G'/G expansion method**

Ekici M., Duran D., Sönmezoğlu A.

J.Adv.Math.Stud., vol.7, no.1, pp.27-44, 2014 (Peer-Reviewed Journal)

5. **Soliton Solutions of the Klein Gordon Zakharov Equation with Power Law Nonlinearity**

EKİCİ M., DURAN D., SÖNMEZOĞLU A.

ISRN Computational Mathematics, vol.2013, pp.1-7, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

1. **Dynamics in Yang-Baxter Systems: Coherence, Quantum Fisher Information and Quantum Thermometry**

Duran D.

QUANTUM OPTICS AND INFORMATION MEETING 8, Kocaeli, Turkey, 25 - 26 April 2024, pp.28

2. **Quantum Coherence in Thermal States Constructed by Yang-Baxter-Matrix**

Duran D.

1st INTERNATIONAL CONFERENCE OF PHYSICS, Ankara, Turkey, 17 August 2021, pp.1-11

3. **Quantum parameter estimaton for Jaynes-Cumming model**

Duran D.

ADIM Physics Days VIII, Bilecik, Turkey, 12 - 15 September 2019

4. **Quantum information theory and quantum computers**

Duran D.

Eighth Bozok Science Workshop (BSW2019), Yozgat, Turkey, 25 - 27 July 2019

5. **Enhancing the quantum parameter estimation via quantum memory channels**

Duran D.

2nd International Scientific and Vocational Studies Congress, Nevşehir, Turkey, 5 - 08 July 2018

6. **Quantum Fisher Information Dynamics for LMG Model Under Decoherence**

Duran D.

1st International Underground Resources and Energy Conference, Yozgat, Turkey, 6 - 08 October 2016, pp.50

7. **Optimal Quantum Estimation of the Coupling Constant of Tavis-Cummings Interaction**

Duran D.

Turkish Physical Society 32th International Physics Conference, Muğla, Turkey, 6 - 09 September 2016, pp.417

8. **Entanglement Detection via Continuous Quantum Channels**
Duran D., Verçin A.
Turkish Physical Society 32th International Physics Conference, Muğla, Turkey, 6 - 09 September 2016, pp.236
9. **A Brief Introduction to Quantum Information and Quantum Computation**
Duran D.
Turkish Physical Society 29th International Physics Conference, Muğla, Turkey, 5 - 08 September 2012, pp.332
10. **Kuantum Bilişim Kuramı ve Uygulamaları: Kriptoloji, Kuantum Işınlama, Kuantum Kodlama**
Duran D.
Yozgat Bilişim Etkinlikleri - VIII, Yozgat, Turkey, 14 - 20 April 2011
11. **Bell Inequalities and Their Violation for Mixed States**
Duran D.
Turkish Physical Society 27th International Physics Congress, Muğla, Turkey, 14 - 17 September 2010, pp.398

Academic and Administrative Experience

2024 - Continues	Head of the Department Bologna Commission	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik
2024 - Continues	Head of Department	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik
2023 - Continues	Deputy Head of Department	Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik

Courses

SEMİNER, Postgraduate, 2023 - 2024
 Uzmanlık Alan Dersi, Postgraduate, 2023 - 2024
 Quantum Information and Quantum Computation I, Doctorate, 2023 - 2024
 General Physics II, Undergraduate, 2023 - 2024
 Physics II, Undergraduate, 2023 - 2024
 Quantum Mechanics I, Postgraduate, 2023 - 2024
 FİZİK II, Undergraduate, 2022 - 2023
 Quantum Physics and Life, Undergraduate, 2022 - 2023
 Quantum Mechanics I, Postgraduate, 2023 - 2024
 SEMİNER, Postgraduate, 2023 - 2024
 FİZİK II, Undergraduate, 2022 - 2023
 FİZİK I, Undergraduate, 2023 - 2024
 FİZİK I, Undergraduate, 2023 - 2024
 Kuantum Fiziği ve Hayat, Undergraduate, 2023 - 2024
 KUANTUM MEKANİĞİ II, Postgraduate, 2023 - 2024
 Uzmanlık Alan Dersi, Postgraduate, 2023 - 2024
 QUANTUM MECHANICS II, Postgraduate, 2022 - 2023
 PHYSICS I, Undergraduate, 2022 - 2023
 QUANTUM MECHANICS I, Postgraduate, 2021 - 2022
 Quantum Physics and Life, Undergraduate, 2021 - 2022
 QUANTUM MECHANICS I, Postgraduate, 2022 - 2023

Activities in Scientific Journals

Scientific Refereeing

- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Ankara University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Sakarya University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Sakarya University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Ege University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Ege University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Ege University, Turkey, August 2023
- TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Eskişehir Technical University, Turkey, August 2023
- OPTICAL AND QUANTUM ELECTRONICS, SCI Journal, March 2023
- TÜBİTAK International Bilateral Joint Cooperation Program Project, Moroccan National Center for Scientific and Technological Research, CNRST , Koc University, Turkey, June 2022
- TUBİTAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, MARDIN ARTUKLU İLÇE MİLLİ EĞİTİM MÜDÜRLÜĞÜ, Turkey, June 2022
- TUBİTAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Kırşehir Ahi Evran University, Turkey, June 2022
- TUBİTAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, BİLİMİLE TEMAS KOLEJİ, Turkey, June 2022
- TUBİTAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Bogazici University, Turkey, June 2022
- TUBİTAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Yıldız Technical University, Turkey, March 2022
- TUBİTAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Yıldız Technical University, Turkey, March 2022
- TUBİTAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Mugla Sıtkı Kocman University, Turkey, March 2022
- TUBİTAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Dokuz Eylül University,

Turkey, March 2022

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Mugla Sitki Kocman University, Turkey, March 2022

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Yıldız Technical University, Turkey, March 2022

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Yıldız Technical University, Turkey, March 2022

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Istanbul Medipol University, Turkey, March 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Ondokuz Mayıs University, Turkey, March 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Yıldız Technical University, Turkey, March 2021

TUBITAK Project, 2209-A - Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, Bogazici University, Turkey, March 2021

INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, SCI Journal, September 2020

Gazi University Journal of Science, Journal Indexed in ESCI, September 2020

QUANTUM INFORMATION PROCESSING, SCI Journal, September 2018

NONLINEAR DYNAMICS, SCI Journal, September 2015

APPLIED MATHEMATICS AND COMPUTATION, SCI Journal, September 2012

Tasks In Event Organizations

Duran D., Eighth Bozok Science Workshop, Workshop Organization, Yozgat, Turkey, Temmuz 2019

Duran D., Yozgat Bilişim Etkinlikleri 14, Workshop Organization, Yozgat, Turkey, Mayıs 2019

Duran D., Yozgat Bilişim Etkinlikleri 13, Workshop Organization, Yozgat, Turkey, Nisan 2018

Duran D., Yozgat Bilişim Etkinlikleri 12, Workshop Organization, Yozgat, Turkey, Nisan 2017

Duran D., Yozgat Bilişim Etkinlikleri 9, Workshop Organization, Yozgat, Turkey, Nisan 2012

Duran D., Yozgat Bilişim Etkinlikleri 8, Workshop Organization, Yozgat, Turkey, Nisan 2011

Metrics

Publication: 24

Citation (WoS): 13

Citation (Scopus): 19

H-Index (WoS): 3

H-Index (Scopus): 2

Congress and Symposium Activities

Quantum Optics and Information Meeting 6, Audience, Ankara, Turkey, 2022

Quantum Optics and Information Meeting 5, Audience, Ankara, Turkey, 2021

Quantum Optics and Information Meeting 3, Audience, Ankara, Turkey, 2019

18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Audience, Ankara, Turkey, 2016

Quantum Optics and Information Meeting 0, Audience, Ankara, Turkey, 2016

17. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Audience, Ankara, Turkey, 2015

Research Areas

Quantum Cryptography, Group Theory and Generalizations, Operators, Topological Groups, Lie Groups, Mathematical Methods in Physics, Quantum Mechanics, Fields Theory and Relativity