

# **Prof. Neşe Özdemir**

## **Personal Information**

**Office Phone:** [+90 212 285 6608](tel:+902122856608)

**Email:** nozdemir@itu.edu.tr

**Web:** <https://avesis.itu.edu.tr/nozdemir>

**Address:** İTÜ Fen Edebiyat Fakültesi Fizik mühendisliği Bölümü 34469 Maslak İstanbul

## **International Researcher IDs**

ORCID: 0000-0003-2605-6582

ScopusID: 35849932600

Yoksis Researcher ID: 24419

## **Education Information**

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği Anabilim Dalı, Turkey 1990 - 1994

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Fizik Mühendisliği (Yıl) (Tezli), Turkey 1987 - 1990

Undergraduate, Istanbul Technical University, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, Turkey 1983 - 1987

## **Foreign Languages**

English

## **Dissertations**

Doctorate, Küresel dalgalarda vakum dalgalanmaları, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Fizik Mühendisliği Anabilim Dalı, 1994

## **Research Areas**

Basic Sciences, Physics, Basic Particles and Areas, General Theory of Particles and Fields

## **Academic Titles / Tasks**

Professor, İstanbul Technical University, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 2005 - Continues

Associate Professor, İstanbul Technical University, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 1999 - 2005

Assistant Professor, İstanbul Technical University, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 1995 - 1999

Research Assistant, İstanbul Technical University, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 1989 - 1995

## **Academic and Administrative Experience**

İstanbul Teknik Üniversitesi, Fen Edebiyat, 2016 - Continues

İstanbul Teknik Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Mühendisliği Bölümü, 2004 - 2007

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Weyl-Lorentz-U(1)-invariant symmetric teleparallel gravity in three dimensions**  
Adak M., Özdemir N., Pala C.  
European Physical Journal C, vol.83, no.7, 2023 (SCI-Expanded)
- II. **Scale invariant Einstein-Cartan theory in three dimensions**  
Adak M., Özdemir N., Sert O.  
European Physical Journal C, vol.83, no.2, 2023 (SCI-Expanded)
- III. **Superconformal generalizations of auxiliary vector modified polynomial f(R) theories**  
Boran S., Kahya E. O., Özdemir N., Özkan M., Zorba U.  
JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS, vol.2020, no.4, 2020 (SCI-Expanded)
- IV. **Three-dimensional higher-order Schrodinger algebras and Lie algebra expansions**  
Kasikci O., Özdemir N., Özkan M., Zorba U.  
JOURNAL OF HIGH ENERGY PHYSICS, vol.2020, no.4, 2020 (SCI-Expanded)
- V. **Anisotropic massive Brans-Dicke gravity extension of the standard Lambda CDM model**  
Akarsu Ö., Katirci N., Özdemir N., Vazquez J. A.  
EUROPEAN PHYSICAL JOURNAL C, vol.80, no.1, 2020 (SCI-Expanded)
- VI. **Three-dimensional extended Lifshitz, Schrödinger and Newton-Hooke supergravity**  
Özdemir N., Özkan M., Zorba U.  
Journal of High Energy Physics, vol.2019, no.11, 2019 (SCI-Expanded)
- VII. **Three-dimensional extended Newtonian (super)gravity**  
Özdemir N., Özkan M., Tunca O., Zorba U.  
JOURNAL OF HIGH ENERGY PHYSICS, no.5, 2019 (SCI-Expanded)
- VIII. **Scale invariance in Newton-Cartan and Horava-Lifshitz gravity**  
Devecioglu D. O., Özdemir N., Özkan M., Zorba U.  
CLASSICAL AND QUANTUM GRAVITY, vol.35, no.11, 2018 (SCI-Expanded)
- IX. **Broken scale invariance, alpha-attractors and vector impurity**  
Akarsu Ö., BORAN S., Kahya E. O., Özdemir N., Özkan M.  
EUROPEAN PHYSICAL JOURNAL C, vol.77, no.5, 2017 (SCI-Expanded)
- X. **Einstein-Cartan-Dirac theory in (1+2)-dimensions**  
Dereli T., Özdemir N., Sert O.  
EUROPEAN PHYSICAL JOURNAL C, vol.73, no.1, 2013 (SCI-Expanded)
- XI. **Spinning cosmic strings: A general class of solutions**  
Ozdemir N.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.20, no.13, pp.2821-2832, 2005 (SCI-Expanded)
- XII. **Maxwell equations in the spinning cosmic string spacetimes**  
OZDEMIR F., Ozdemir N.  
GENERAL RELATIVITY AND GRAVITATION, vol.36, no.9, pp.2053-2062, 2004 (SCI-Expanded)
- XIII. **Gravitomagnetic effects and cosmic strings**  
Ozdemir N.  
CLASSICAL AND QUANTUM GRAVITY, vol.20, no.20, pp.4409-4417, 2003 (SCI-Expanded)
- XIV. **Motion of charged particles around a rotating black hole in a magnetic field**  
ALIEV A., Ozdemir N.  
MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol.336, no.1, pp.241-248, 2002 (SCI-Expanded)
- XV. **Exact metric around a wiggly cosmic string**  
Ozdemir N.  
GENERAL RELATIVITY AND GRAVITATION, vol.33, no.3, pp.603-606, 2001 (SCI-Expanded)
- XVI. **Cancellation of ultraviolet divergences for locally flat metrics**  
HORTACSU M., Ozdemir N.  
MODERN PHYSICS LETTERS A, vol.13, no.38, pp.3081-3090, 1998 (SCI-Expanded)
- XVII. **Semiclassical corrections to the metric of multiple cosmic strings - Addendum**

- ALIEV A., Ozdemir N.  
 CLASSICAL AND QUANTUM GRAVITY, vol.15, no.12, pp.3937-3940, 1998 (SCI-Expanded)
- XVIII. **Quantum fluctuations of some gravitational waves**  
 ENGINER Y., HORTACSU M., KAYA R., Ozdemir N., ULKER K., YAPISKAN B.  
 INDIAN JOURNAL OF PURE & APPLIED MATHEMATICS, vol.29, no.10, pp.1029-1048, 1998 (SCI-Expanded)
- XIX. **Can an Unruh detector feel a cosmic string?**  
 Bilge A., HORTACSU M., Ozdemir N.  
 GENERAL RELATIVITY AND GRAVITATION, vol.30, no.6, pp.861-876, 1998 (SCI-Expanded)
- XX. **Quantum fluctuations for a scalar field in the space-time of gravitational impulsive wave**  
 ENGINER Y., HORTACSU M., Ozdemir N.  
 INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.13, no.8, pp.1201-1211, 1998 (SCI-Expanded)
- XXI. **Vacuum fluctuations of a massless spin-1/2 field around multiple cosmic strings**  
 ALIEV A., HORTACSU M., Ozdemir N.  
 CLASSICAL AND QUANTUM GRAVITY, vol.14, no.12, pp.3215-3224, 1997 (SCI-Expanded)
- XXII. **Particle creation if a cosmic string snaps**  
 Bilge A., HORTACSU M., Ozdemir N.  
 GENERAL RELATIVITY AND GRAVITATION, vol.28, no.5, pp.511-525, 1996 (SCI-Expanded)
- XXIII. **QUANTUM FLUCTUATIONS OF A SPHERICAL GRAVITATIONAL SHOCK-WAVE .2.**  
 OZDEMIR N., HORTACSU M.  
 CLASSICAL AND QUANTUM GRAVITY, vol.12, no.5, pp.1221-1227, 1995 (SCI-Expanded)
- XXIV. **REDUCTION OF SPACE-TIME BY A CONSTRAINT FOR C-0 METRICS**  
 HORTACSU M., OZDEMIR N.  
 JOURNAL OF MATHEMATICAL PHYSICS, vol.35, no.1, pp.173-180, 1994 (SCI-Expanded)

## Supported Projects

- Özdemir N., Project Supported by Higher Education Institutions, Gravitational collapse of Spherically Symmetric Caharged Fluid İn RN-de Sitter, 2006 - 2018
- Özdemir N., Project Supported by Higher Education Institutions, Non-Adiabatic Radiating Collopase in de Sitter Soacetime, 2005 - 2018
- Özdemir N., Project Supported by Higher Education Institutions, Yüksek Boyutlu Uzaylarda Warp Geometrisi, 2004 - 2006

## Metrics

- Publication: 26  
 Citation (WoS): 199  
 Citation (Scopus): 195  
 H-Index (WoS): 8  
 H-Index (Scopus): 7

## Non Academic Experience

- İstanbul Teknik Üniversitesi  
 İstanbul Teknik Üniversitesi  
 İstanbul Teknik Üniversitesi  
 İstanbul Teknik Üniversitesi