

# Prof.Dr. ŞERİFE NEVİN GÜRBÜZ

## Kişisel Bilgiler

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## Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: AAA-7469-2022

ScopusID: 55833337800

Yoksis Araştırmacı ID: 171878

## Eğitim Bilgileri

Doktora, Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, Matematik (Dr), Türkiye 1995 - 1999

Yüksek Lisans, Eskişehir Osmangazi Üniversitesi, Fen Bilimleri Enstitüsü, Matematik-Bilgisayar Bilimleri (YI) (Tezli), Türkiye 1991 - 1993

## Yaptığı Tezler

Doktora, R3\_1 Minkowski Uzayında elastik çizgiler üzerine, Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, Matematik (Dr), 1999

Yüksek Lisans, Sonlu projektif Düzlemlerin Afin Alt Düzlemleri ve Bazı komplement Geometrik Yapıların Projektif Düzlemlere Gömülmesi Üzerine, Eskişehir Osmangazi Üniversitesi, Fen Bilimleri Enstitüsü, Matematik-Bilgisayar Bilimleri (YI) (Tezli), 1993

## Araştırma Alanları

Temel Bilimler

## Akademik Unvanlar / Görevler

Prof.Dr., Eskişehir Osmangazi Üniversitesi, Fen Fakültesi, Matematik-Bilgisayar Bölümü, 2014 - Devam Ediyor

Doç.Dr., Eskişehir Osmangazi Üniversitesi, Fen Fakültesi, Matematik-Bilgisayar Bölümü, 2008 - 2014

Yrd.Doç.Dr., Eskişehir Osmangazi Üniversitesi, Fen Fakültesi, Matematik-Bilgisayar Bölümü, 1999 - 2008

## Verdiği Dersler

Matematik, Doğa ve Sanat II, Lisans, 2020 - 2021

Eğriler ve yüzeylerin diferansiyel geometrisi II, Yüksek Lisans, 2020 - 2021

Genel Matematik II, Lisans, 2019 - 2020

Spacelike Hiperyüzeylerin Diferansiyel Geometrisi I, Yüksek Lisans, 2020 - 2021

Matematik II, Lisans, 2019 - 2020

Matematik I, Lisans, 2019 - 2020  
İşletme Matematiği I, Lisans, 2019 - 2020  
Spacelike hiperyüzeylerin Global diferansiyel geometrisi II, Doktora, 2014 - 2015  
Semi Riemannian manifoldlarında null eğriler ve hiperyüzeyler, Doktora, 2013 - 2014  
Null Eğriler ve Yüzeyler I, Doktora, 2012 - 2013  
Semi Riemann Geometride Varyasyonlar analizi, Doktora, 2011 - 2012  
Lorentzian ve Lightlike Geometri, Doktora, 2010 - 2011  
Tensör Cebiri, Lisans, 2007 - 2008  
Global Diferansiyel Geometri II, Lisans, 2001 - 2002  
Diferansiyel Hesap, Lisans, 2001 - 2002  
Global Diferansiyel Geometri I, Lisans, 2001 - 2002

## SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Vortex filament flows for curves in a 3-dimensional pseudo-Riemannian manifold**  
Yüzbai Z. K., GÜRBÜZ Ş. N., Lee H. C., Yoon D. W.  
Aequationes Mathematicae, cilt.98, sa.1, ss.261-274, 2024 (SCI-Expanded)
- II. **The evolution of an electric field, Hasimoto surfaces and three differential formulas with the new frame in R13**  
GÜRBÜZ Ş. N.  
Optik, cilt.272, 2023 (SCI-Expanded)
- III. **Hasimoto Maps for Nonlinear Schrodinger Equations in Minkowski Space**  
GÜRBÜZ Ş. N., YÜZBAŞI Z. K., Yoon D. W.  
JOURNAL OF NONLINEAR MATHEMATICAL PHYSICS, cilt.29, sa.4, ss.761-775, 2022 (SCI-Expanded)
- IV. **The change of electric field and relaxed elastic line via anholonomic coordinates with Darboux frame in R13**  
Gürbüz N. E.  
Optik, cilt.270, 2022 (SCI-Expanded)
- V. **The evolution of electric field in pseudo-Galilean 3-space G13**  
Gürbüz N. E.  
Optik, cilt.269, 2022 (SCI-Expanded)
- VI. **Geometric phases for three cases of the electric field with new type Bishop frame in R 1 3**  
Yoon D. W., Gürbüz N. E.  
International Journal of Geometric Methods in Modern Physics, cilt.19, 2022 (SCI-Expanded)
- VII. **Three anholonomy densities for three formulations with anholonomic coordinates with hybrid frame in R13**  
Gürbüz N. E., Myrzakulov R., Myrzakulova Z.  
Optik, cilt.261, 2022 (SCI-Expanded)
- VIII. **The null geometric phase along optical fiber for anholonomic coordinates**  
Gürbüz N. E.  
Optik, cilt.258, 2022 (SCI-Expanded)
- IX. **Visco-Da Rios Equation in 3-Dimensional Riemannian Manifold**  
Gürbüz N. E., Yoon D. W.  
Frontiers in Physics, cilt.9, 2022 (SCI-Expanded)
- X. **The evolution of an electric field with respect to the type-1 PAF and the PAFORS frames in**  
Gürbüz N. E.  
OPTIK, cilt.250, 2022 (SCI-Expanded)
- XI. **The visco modified Heisenberg ferromagnet equation and physical applications**  
Gürbüz N. E., Yoon D. W.  
Optik, cilt.248, 2021 (SCI-Expanded)

- XII. **The pseudo-null geometric phase along optical fiber**  
Gürbüz N. E.  
International Journal of Geometric Methods in Modern Physics, cilt.18, 2021 (SCI-Expanded)
- XIII. **Three geometric phases with the visco-Da Rios equation for the hybrid frame in  $\mathbb{R}^3$**   
GÜRBÜZ Ş. N.  
OPTIK, cilt.248, 2021 (SCI-Expanded)
- XIV. **The evolution of the electric field with Frenet frame in Lorentzian Lie groups**  
Gürbüz N. E.  
Optik, cilt.247, 2021 (SCI-Expanded)
- XV. **The variation of the electric field along optic fiber for null Cartan and pseudo-null frames**  
GÜRBÜZ Ş. N.  
International Journal of geometric methods in modern physics, cilt.18, sa.8, 2021 (SCI-Expanded)
- XVI. **Geometry of curve flows in isotropic spaces**  
Gurbuz N., Yoon D. W.  
AIMS MATHEMATICS, cilt.5, sa.4, ss.3434-3445, 2020 (SCI-Expanded)
- XVII. **Three anholonomy densities according to bishop frame in euclidean 3-space**  
Gurbuz N.  
Journal of Mathematical Physics, Analysis, Geometry, cilt.15, sa.4, ss.510-525, 2019 (SCI-Expanded)
- XVIII. **Parallel transports and related phases according to Frenet and Darboux frame in  $\mathbb{R}^3$**   
Gurbuz N.  
International Journal of Geometric Methods in Modern Physics, cilt.15, sa.12, 2018 (SCI-Expanded)
- XIX. **Three classes of non-lightlike curve evolution according to Darboux frame and geometric phase**  
Gurbuz N.  
International Journal of Geometric Methods in Modern Physics, cilt.15, sa.2, 2018 (SCI-Expanded)
- XX. **Anholonomy according to three formulations of non-null curve evolution**  
Gurbuz N.  
International Journal of Geometric Methods in Modern Physics, cilt.14, sa.12, 2017 (SCI-Expanded)
- XXI. **Generalized Elastic Line Deformed on a Nonnull Surface by an External Field in the 3-Dimensional Semi-Euclidean Space  $E^3_1$**   
Gurbuz N., Gorgulu A.  
Ukrainian Mathematical Journal, cilt.67, sa.3, ss.381-389, 2015 (SCI-Expanded)
- XXII. **Moving non-null curves according to Bishop frame in Minkowski 3-space**  
Gurbuz N.  
International Journal of Geometric Methods in Modern Physics, cilt.12, sa.5, 2015 (SCI-Expanded)
- XXIII. **Relaxed elastic lines of second kind in dual space**  
AYDIN ŞEKERCİ G., Gurbuz N., Gorgulu A., Coken A. C.  
International Journal of Geometric Methods in Modern Physics, cilt.12, sa.2, 2015 (SCI-Expanded)
- XXIV. **On dual r-elastic line**  
Gürbüz Ş. N., Gorgulu A.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, cilt.11, sa.10, 2014 (SCI-Expanded)
- XXV. **p elastica in the 3 dimensional Lorentzian space forms**  
GÜRBÜZ Ş. N.  
Turkish Journal of Mathematics, cilt.30, ss.33-41, 2009 (SCI-Expanded)
- XXVI. **Intrinsic formulation for elastic line deformed on a surface by external field in the Minkowski 3-space  $E^3_1$**   
Gurbuz N.  
JOURNAL OF MATHEMATICAL ANALYSIS AND APPLICATIONS, cilt.327, sa.2, ss.1086-1094, 2007 (SCI-Expanded)
- XXVII. **Intrinsic formulation for elastic line deformed on a surface by external field in the Minkowski 3-space  $E^3_1$**   
GÜRBÜZ Ş. N.  
J.Math.Anal.Appl, cilt.327, ss.1086-1094, 2007 (SCI-Expanded)

- XXVIII. **An extension of Takahashi theorem for the linearized operators of the higher order mean curvatures**  
Alias L. J., Gurbuz N.  
Geometriae Dedicata, cilt.121, sa.1, ss.113-127, 2006 (SCI-Expanded)

### **Diğer Dergilerde Yayınlanan Makaleler**

- I. **Backlund Transformations of Non-Null Curve Flows with Respect to Frenet Frame**  
GÜRBÜZ Ş. N.  
International Journal of Mathematical Combinatorics, cilt.4, ss.11-24, 2021 (Hakemli Dergi)
- II. **The Variation of Electric Field With Respect to Darboux Triad in Euclidean 3-Space**  
GÜRBÜZ Ş. N.  
Mathematical Combinatorics, cilt.2, ss.17-32, 2021 (Hakemli Dergi)
- III. **Hasimoto surfaces for two classes of curve evolution in Minkowski 3-space**  
Gurbuz N., Yoon D. W.  
DEMONSTRATIO MATHEMATICA, cilt.53, sa.1, ss.277-284, 2020 (ESCI)
- IV. **FERMI-WALKER PARALLEL TRANSPORT ACCORDING TO QUASI FRAME IN THREE DIMENSIONAL MINKOWSKI SPACE**  
Gurbuz N., Yoon D. W.  
JOURNAL OF GEOMETRY AND SYMMETRY IN PHYSICS, cilt.54, ss.1-12, 2019 (ESCI)
- V. **Total anholonomies with Bishop 2-type frame in  $R_{13}$**   
GÜRBÜZ Ş. N.  
Nonlinear Analysis and Differential Equations, cilt.7, sa.1, ss.115-124, 2019 (Hakemli Dergi)
- VI. **Bishop 2-type frame for non-null curves**  
GÜRBÜZ Ş. N.  
International Mathematical Forum, cilt.12, sa.18, ss.879-889, 2017 (Hakemli Dergi)
- VII. **Inextensible curve flows according to Bishop 2 type frame in Minkowski 3 space**  
GÜRBÜZ Ş. N.  
International Mathematical Forum, cilt.11, sa.24, ss.1167-1174, 2016 (Hakemli Dergi)
- VIII. **Intrinsic geometry of the nonlinear heat equation for spacelike curves with timelike normal according to Bishop 2-type frame in Minkowski 3-space**  
GÜRBÜZ Ş. N., Işık E.  
International Mathematical Forum, cilt.11, ss.1109-1115, 2016 (Hakemli Dergi)
- IX. **Inextensible flows of curves in the equiform geometry of the double isotropic space  $D3_2$**   
GÖRGÜLÜ A., GÜRBÜZ Ş. N.  
New trends in Mathematical Sciences, cilt.3, sa.4, ss.247-252, 2015 (Hakemli Dergi)
- X. **The Geometry of vortex filaments for MHD in Minkowski 3-space**  
GÜRBÜZ Ş. N.  
International Journal of pure and applied Mathematics, cilt.91, ss.219-229, 2014 (Hakemli Dergi)
- XI. **Intrinsic formulation for elastic line deformed on a surface by external field in the pseudo-Galilean space  $G^3_1$**   
GÜRBÜZ Ş. N.  
Life Science Journal, cilt.10, sa.4, ss.1348, 2013 (Hakemli Dergi)
- XII. **The model particle with torsion for 4 dimensional null Cartan curves**  
GÜRBÜZ Ş. N.  
Life Science Journal, 2013 (Hakemli Dergi)
- XIII. **r-normal elastic on non-null surface in Minkowski 3-space**  
GÜRBÜZ Ş. N.  
International Journal of current research, cilt.5, sa.11, 2013 (Hakemli Dergi)
- XIV. **Inextensible flows of non-null curves on an pseudo-Euclidean hypersurface in pseudo-Euclidean**

**space  $R^n_1$**

GÜRBÜZ Ş. N.

Life Science journal, cilt.10, sa.4, ss.1084, 2013 (Hakemli Dergi)

**XV. Lightlike Geometry of vortex filaments**

GÜRBÜZ Ş. N., GÖRGÜLÜ A.

International Journal of Pure and Applied Sciences and Technology, cilt.3, sa.2, ss.80-87, 2011 (Hakemli Dergi)

**XVI. Intrinsic geometry of the NLS equation and heat system in 3 dimensional Minkowski space**

GÜRBÜZ Ş. N.

Adv. Studies Thoer. Phys, cilt.4, sa.11, ss.557-564, 2010 (Hakemli Dergi)

**XVII. Particle with torsion in the Minkowski space  $E^3_1$**

GÜRBÜZ Ş. N.

Adv. Studies Theor.Phys., cilt.4, sa.3, ss.101, 2010 (Hakemli Dergi)

**XVIII. The motion of timelike surfaces in timelike geodesic coordinates**

GÜRBÜZ Ş. N.

Int. J. Math. Anal, cilt.4, sa.7, ss.349-356, 2010 (Hakemli Dergi)

**XIX. Inextensible flows of spacelike timelike and null curves**

GÜRBÜZ Ş. N.

Int. J. Contemp. Math. Sciences, cilt.4, sa.32, ss.1599-1604, 2009 (Hakemli Dergi)

**XX. The differential formula for the first derivative of unit timelike split quaternion curve in the semi-Euclidean space  $E^4_2$**

GÜRBÜZ Ş. N.

Int.J. Contemp. Math. Sciences, cilt.4, sa.29, ss.1435-1440, 2009 (Hakemli Dergi)

**XXI. Bending fluctuations of an elastic line on a curved surface in  $R^3_1$**

GÜRBÜZ Ş. N.

Mathematical Proceedings of the Royal Irish Academy, cilt.107, sa.1, ss.15-29, 2007 (Hakemli Dergi)

**XXII. Backlund transformations of constant torsion curves in  $R^n_1$**

GÜRBÜZ Ş. N.

Hadronic Journal, cilt.29, ss.213-220, 2006 (Hakemli Dergi)

**XXIII. The differential formula of Hasimoto transformation in Minkowski 3-space**

GÜRBÜZ Ş. N.

International Journal of Mathematics and Mathematical Sciences, cilt.16, ss.2609-2616, 2005 (Scopus)

**XXIV. On a variation problem in Minkowski space**

GÜRBÜZ Ş. N.

Hadronic Journal, cilt.27, ss.445-458, 2004 (Hakemli Dergi)

**XXV. Intrinsic equations for a relaxed elastic line on an oriented hypersurface in the Minkowski space  $R^n_1$**

GÜRBÜZ Ş. N., GÖRGÜLÜ A.

Turkish Journal of Math, cilt.24, ss.283-294, 2000 (Hakemli Dergi)

**XXVI. Intrinsic equations for a relaxed elastic line on an oriented surface in the Minkowski space  $R^3_1$**

GÜRBÜZ Ş. N., GÖRGÜLÜ A.

Hadronic Journal, cilt.23, ss.143-163, 2000 (Hakemli Dergi)

## **Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar**

**I. Hasimoto surfaces for two classes of curve evolution according to Frenet frame in Minkowski 3-space**

Gürbüz Ş. N.

5. International conference on computational and experimental Science and Engineering, Antalya, Türkiye, 12 - 16 Ekim 2018, ss.1-5

**II. Motion of curves according to Bishop 2 type frame in Euclidean 3 space**

GÜRBÜZ Ş. N.

The fourteenth International conference on mathematics and its applications, 5 - 07 Kasım 2015, cilt.10

III. **Elastic line is exposed to static force field for null Cartan curves**

Gürbüz Ş. N.

The Fourteenth International conference on Mathematics and its Applications Politehnica University of Timişoara, Timisoara, Romanya, 5 - 07 Kasım 2015, cilt.10, ss.1-2

## Desteklenen Projeler

GÜRBÜZ Ş. N., Yükseköğretim Kurumları Destekli Proje, Minkowski Uzayında Null ve Null Olmayan Eğriler İçin Geometrik Faz ve Hasimoto Yüzeyleri, 2017 - 2019

## Bilimsel Hakemlikler

JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, SCI-E Kapsamındaki Dergi, Ağustos 2021

AIMS MATHEMATICS, SCI-E Kapsamındaki Dergi, Mart 2021

APPLIED MATHEMATICS AND COMPUTATION, SCI Kapsamındaki Dergi, Ocak 2021

MEDITERRANEAN JOURNAL OF MATHEMATICS, SCI-E Kapsamındaki Dergi, Nisan 2018

INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, SCI-E Kapsamındaki Dergi, Şubat 2018

Nonlinear Engineering-Modeling and Application, ESCI Kapsamındaki Dergi, Ağustos 2017

MEDITERRANEAN JOURNAL OF MATHEMATICS, SCI-E Kapsamındaki Dergi, Temmuz 2017

INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, SCI-E Kapsamındaki Dergi, Temmuz 2017

Sahand Communications in Mathematical Analysis, ESCI Kapsamındaki Dergi, Şubat 2016

INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, SCI-E Kapsamındaki Dergi, Ocak 2016

## Metrikler

Yayın: 62

Atıf (WoS): 276

Atıf (Scopus): 303

H-İndeks (WoS): 10

H-İndeks (Scopus): 11

## Kongre ve Sempozyum Katılımı Faaliyetleri

Conference en hommage a Ahmad el Soufi, İzleyici / Dinleyici, Tours, Fransa, 2017

International Conference on surface theory in 3-manifolds , İzleyici / Dinleyici, Sevilla, İspanya, 2011

## Burslar

Yök Öğretim Üyesi araştırma bursu, YÖK, 2011 - 2011

## Akademi Dışı Deneyim

Murcia Üniversitesi