

# Prof. ABDULLAH AZİZ ERGİN

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, Ankara University, Fen Bil.Ens., Geometri, Turkey 1982 - 1989

Postgraduate, Ankara University, Fen Bil.Ens., Geometri, Turkey 1980 - 1982

Undergraduate, Ankara University, Fen Fakültesi, Matematik Bölümü, Turkey 1976 - 1980

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, Lorentz Düzleminde Kinematik Geometri, Ankara University, Faculty of Science, Matematik/ Geometri, 1989

Postgraduate, Darboux Eğrileri, Ankara University, Matematik, Geometri, 1982

## Research Areas

Mathematics, Differential Geometry, Natural Sciences

## Academic Titles / Tasks

Professor, Akdeniz University, Faculty of Science, Department of Mathematics, 1999 - Continues

Associate Professor, National Defense University, Turkish Military Academy, Dean S Office, 1983 - 1999

Research Assistant, Ankara University, Fen Fakültesi, Matematik Bölümü, 1981 - 1983

## Academic and Administrative Experience

Akdeniz University, Fen Fak, Matematik, 2002 - Continues

Akdeniz University, 2012 - 2015

Akdeniz University, 2012 - 2015

Akdeniz University, 2008 - 2015

Akdeniz University, Fen Fak, 2010 - 2013  
Akdeniz University, Faculty of Science, 2008 - 2013  
Akdeniz University, 2008 - 2013  
Akdeniz University, Faculty of Law, 2008 - 2012  
Akdeniz University, 2008 - 2012  
Akdeniz University, Fen Ed. Fak, 2008 - 2010  
Akdeniz University, Fen Ed Fak, 2003 - 2006  
Akdeniz University, Fen Ed Fak, Matematik, 2000 - 2003  
Akdeniz University, Fen Edebiyat Fak, Matematik, 2000 - 2002

## Courses

Diferensiyel Geometri I, Undergraduate, 2013 - 2014  
Diferensiyel Geometri II, Undergraduate, 2012 - 2013  
Analitik Geometri II, Undergraduate, 2007 - 2008  
İzdüşümsel Geometri, Undergraduate, 2007 - 2008  
Projektif Geometri, Postgraduate, 2007 - 2008  
Projektif Geometri I, Postgraduate, 2007 - 2008  
Analitik Geometri I, Undergraduate, 2007 - 2008  
Belitsel Geometri, Undergraduate, 2007 - 2008

## Advising Theses

ERGİN A. A., 3-Boyutlu Dinamik Sistemlerin Eşdeğerlik Problemi, Doctorate, T.Bayrakdar(Student), 2016  
ERGİN A. A., Genelleştirilmiş Cartan-Vranceonu Manifoldlarındaki Bazı Eğrilerin ve Altmanifoldların Geometrisi, Doctorate, A.YILMAZ(Student), 2015  
ERGİN A. A., genelleştirilmiş Cartan-Vranceanu manifoldlarındaki bazı eğrilerin geometrisi, Doctorate, A.Yılmaz(Student), 2015  
ERGİN A. A., Conflict kümelerin Geometrisi, Postgraduate, A.BOLAT(Student), 2013  
ERGİN A. A., Conflict kümelerin geometrisi, Postgraduate, A.Bolat(Student), 2013  
ERGİN A. A., Bezier Eğrileri ve Bezier Yüzeyleri, Postgraduate, A.YILMAZ(Student), 2009  
ERGİN A. A.,  $E^3$  ve  $E^4$  Öklid Uzayında Eğrilerin ve  $E^3$  Öklid Uzayında Yüzeylerin Kuaterniyonlar Yardımıyla İncelenmesi, Postgraduate, T.BAYRAKTAR(Student), 2009  
ERGİN A. A., Timelike Kuaterniyonların Bazı Geometrik Uygulamaları, Doctorate, M.ÖZDEMİR(Student), 2007  
ERGİN A. A., Timelike kuaterniyonların bazı geometrik uygulamaları, Doctorate, M.Özdemir(Student), 2007  
ERGİN A. A., Modüllerde Radikaller, Postgraduate, G.TINAZTEPE(Student), 2001  
ERGİN A. A., Lorentz Uzayında non-degenerate altmanifoldlar ile bunların non-degenerate hiperyüzeylerinin eğrilikleri arasındaki bağıntılar, Postgraduate, M.ÖZDEMİR(Student), 2001  
ERGİN A. A., Lorenz uzayında non-degenerate altmanifoldlar ile bunların non-degenerate hiperyüzeylerinin eğrilikleri arasındaki bağıntılar, Postgraduate, M.Özdemir(Student), 2001

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

- I. **Minimal Surfaces in Three-Dimensional Riemannian Manifold Associated with a Second-Order ODE**  
Bayrakdar T., ERGİN A. A.  
MEDITERRANEAN JOURNAL OF MATHEMATICS, vol.15, no.4, 2018 (SCI-Expanded)
- II. **Equivalence problem for compatible bi-Hamiltonian structures on three-dimensional orientable manifolds**

- Bayrakdar T., ERGİN A. A.  
 TURKISH JOURNAL OF MATHEMATICS, vol.42, no.5, pp.2452-2465, 2018 (SCI-Expanded)
- III. **Motion of an integral curve of a Hamiltonian dynamical system and the evolution equations in 3D**  
 Bayrakdar T., ERGİN A. A.  
 INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.14, no.12, 2017 (SCI-Expanded)
- IV. **Mannheim Partner Curves in Cartan-Vranceanu 3-space**  
 Ceylan A., ERGİN A. A.  
 FILOMAT, vol.30, no.4, pp.1089-1095, 2016 (SCI-Expanded)
- V. **Backlund transformation for spacelike curves in the Minkowski space-time**  
 ÖZDEMİR M., Erdogdu M., Şimşek H., ERGİN A. A.  
 KUWAIT JOURNAL OF SCIENCE, vol.41, no.3, pp.63-80, 2014 (SCI-Expanded)
- VI. **Rotations with unit timelike quaternions in Minkowski 3-space**  
 Ozdemir M., Ergin A. A.  
 JOURNAL OF GEOMETRY AND PHYSICS, vol.56, no.2, pp.322-336, 2006 (SCI-Expanded)

### Articles Published in Other Journals

- I. **TIME-LIKE HAMILTONIAN DYNAMICAL SYSTEMS IN MINKOWSKI SPACE  $R^{-1}(3)$  AND THE NONLINEAR EVOLUTION EQUATIONS**  
 Bayrakdar T., ERGİN A. A.  
 MATEMATICKI VESNIK, vol.70, no.1, pp.12-25, 2018 (ESCI)
- II. **HAMILTONIAN DYNAMICAL SYSTEMS AND GEOMETRY OF SURFACES IN 3-D**  
 Bayrakdar T., ERGİN A. A.  
 JOURNAL OF DYNAMICAL SYSTEMS AND GEOMETRIC THEORIES, vol.15, no.2, pp.163-176, 2017 (ESCI)
- III. **BERTRAND MATE OF A BIHARMONIC CURVE IN CARTAN-VRANCEANU 3-DIMENSIONAL SPACE**  
 YILMAZ CEYLAN A., ERGİN A. A.  
 INTERNATIONAL ELECTRONIC JOURNAL OF GEOMETRY, vol.8, pp.45-52, 2015 (ESCI)
- IV. **A QUATERNIONIC APPROACH to GEOMETRY of CURVES on SPACES of CONSTANT CURVATURE**  
 BAYRAKDAR T., ERGİN A. A.  
 International Journal of Geometry, no.3, pp.53-65, 2014 (Peer-Reviewed Journal)
- V. **Timelike quaternion frame of a non-lightlike curve**  
 ÖZDEMİR M., ERGİN A. A.  
 Beitrage zur Algebra und Geometrie, vol.49, no.2, pp.325-333, 2008 (Scopus)
- VI. **PARALLEL FRAMES OF NON-LIGHTLIKE CURVES**  
 ÖZDEMİR M., ERGİN A. A.  
 MISSOURI JOURNAL OF MATHEMATICAL SCIENCES, vol.20, no.2, pp.127-137, 2008 (ESCI)
- VII. **Paralel frames of non-lightlike curves**  
 ÖZDEMİR M., ERGİN A. A.  
 Missouri Journal of Mathematical Sciences, vol.20, pp.127-137, 2008 (Scopus)
- VIII. **Timelike Quaternion Frames of non-lightlike curves,**  
 ÖZDEMİR M., ERGİN A. A.  
 Beiträge zur Algebra und Geometrie / Contributions to Algebra and Geometry, vol.49, pp.325-333, 2008 (Scopus)
- IX. **Spacelike Darboux curves in Minkowski 3-space**  
 ÖZDEMİR M., ERGİN A. A.  
 Differential Geometry - Dynamical Systems, vol.9, pp.131-137, 2007 (Peer-Reviewed Journal)
- X. **Some Geometric Applications of split Quarternions**  
 ÖZDEMİR M., ERGİN A. A.  
 proc. 16th Int. conf. jongjeon Math.Soc., vol.16, 2005 (Peer-Reviewed Journal)
- XI. **Nonlightlike darboux curves in Minkowski n-space**  
 ÖZDEMİR M., ERGİN A. A.

Hadronic Journal Supp., vol.19, no.3, pp.343-351, 2004 (Peer-Reviewed Journal)

**XII. Timelike Darboux Curves on a timelike surface  $M^2_1$**

ERGİN A. A.

Hadronic Journal, Institute For Basic Research, U.S.A., Vol. 24. Number 6, December 2001 ,pp. 701-712., vol.24, pp.701-712, 2001 (Peer-Reviewed Journal)

**XIII. A Relation Between Prime Numbers And Twin Prime Numbers**

ERGİN A. A.

Mathematical and Computational Applications, vol.6, no.2, pp.153-154, 2001 (Peer-Reviewed Journal)

**XIV. On The Division Algebras In  $R^3$**

Yaylı Y., Hacısalihoğlu H., ERGİN A. A.

Algebras Groups And Geometries, Institute For Basic Research, Hadronic Press Inc. U.S.A.Vol. 18. Number 2, June 2001,pp. 341-349., vol.18, no.2, pp.341-349, 2001 (Peer-Reviewed Journal)

**XV. Three Lorentzian Planes Moving With Respect To One Another And Pole Points**

ERGİN A. A.

Commun. Fac. Sci.Univ.Ank. Series A ,V.41,pp.79-84, vol.41, pp.79-84, 1992 (Peer-Reviewed Journal)

**XVI. A New Characterization For Darboux Curves**

ERGİN A. A.

Kara Harp Okulu Dergisi, II (1) ,sh.96-102., vol.2, no.1, pp.96-102, 1992 (Peer-Reviewed Journal)

**XVII. On The Generalized Darboux Curves**

ERGİN A. A.

Commun Fac. Sci.Univ.Ank. Series A ,V.41,pp.73-77., vol.41, pp.73-77, 1992 (Peer-Reviewed Journal)

**XVIII. On The One Parameter Lorentzian Motions**

ERGİN A. A.

Commun Fac. Sci.Univ.Ank. Series A ,V.40,pp.59-66., vol.40, pp.59-66, 1991 (Peer-Reviewed Journal)

**XIX. On The 3-Plane And Cone And Spheres**

ERGİN A. A., Hacısalihoğlu H.

Commun Fac. Sci.Univ.Ank. Series A ,V.38,pp.1-6., vol.38, pp.1-6, 1989 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

**I. Curve Couples in Cartan-Vranceanu Space**

YILMAZ CEYLAN A., ERGİN A. A.

28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 10 September 2015, pp.114

**II. Curve Couples in Cartan-Vranceanu Space**

YILMAZ CEYLAN A., ERGİN A. A.

28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 10 September 2015, pp.114

**III. Mannheim Curves in Cartan-Vranceanu 3-Space**

YILMAZ CEYLAN A., ERGİN A. A.

The 28th International Conference of The Jangjeon Mathematical Society, Antalya, Turkey, 15 - 19 May 2015, pp.86

**IV. Mannheim Curves in Cartan-Vranceanu 3-Space**

YILMAZ CEYLAN A., ERGİN A. A.

The 28th International Conference of The Jangjeon Mathematical Society, Antalya, Turkey, 15 - 19 May 2015, pp.86

**V. On the Biharmonic Parallel Curves of the Rotational Surfaces in Cartan-Vranceanu Space**

YILMAZ CEYLAN A., ERGİN A. A.

3rd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2014), Viyana, Austria, 25 - 28 August 2014, pp.311

**VI. On the Biharmonic Meridian Curves of the Rotational Surfaces in Cartan-Vranceanu Space**

YILMAZ CEYLAN A., ERGİN A. A.

3rd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2014), Viyana, Austria, 25 - 28 August 2014, pp.312

- VII. **On the Biharmonic Parallel Curves of the Rotational Surfaces in Cartan-Vranceanu Space**  
YILMAZ CEYLAN A., ERGİN A. A.  
3rd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2014), Viyana, Austria, 25 - 28 August 2014, pp.311
- VIII. **On the Biharmonic Meridian Curves of the Rotational Surfaces in Cartan-Vranceanu Space**  
YILMAZ CEYLAN A., ERGİN A. A.  
3rd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2014), Viyana, Austria, 25 - 28 August 2014, pp.312
- IX. **On Backlund Transformation for Timelike Curves in Minkowski Space-Time**  
ERGİN A. A., Erdođdu M., ÖZDEMİR M.  
XII. GEOM. SEMP., Bilecik, Turkey, 23 - 26 June 2014, pp.127
- X. **On Backlund Transformation for Timelike Curves in Minkowski Space-Time**  
ERGİN A. A., Erdođdu M., ÖZDEMİR M.  
XII. GEOM. SEMP., Bilecik, Turkey, 23 - 26 June 2014, pp.127
- XI. **On Curve Couples of a Biharmonic Curve in Cartan-Vranceanu  $(2n + 1)$ -dimensional Space**  
YILMAZ CEYLAN A., ERGİN A. A., Ugail H.  
2nd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2013), Saray Bosna, Bosnia And Herzegovina, 26 - 29 August 2013, pp.236
- XII. **Bäcklund Transformation for Spacelike Curves in  $E_1^4$**   
ÖZDEMİR M., Erdođdu M., ERGİN A. A.  
2ND INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Sarajeva, Bosnia And Herzegovina, 26 - 29 August 2013, pp.432
- XIII. **Bäcklund Transformation for Spacelike Curves in  $E_1^4$**   
ÖZDEMİR M., Erdođdu M., ERGİN A. A.  
2ND INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Sarajeva, Bosnia And Herzegovina, 26 - 29 August 2013, pp.432
- XIV. **On Curve Couples of a Biharmonic Curve in Cartan-Vranceanu  $(2n + 1)$ -dimensional Space**  
YILMAZ CEYLAN A., ERGİN A. A., Ugail H.  
2nd International Eurasian Conference on Mathematical Sciences and Applications ( IECMSA-2013), Saray Bosna, Bosnia And Herzegovina, 26 - 29 August 2013, pp.236
- XV. **On Curve Couples of a Biharmonic Curve in Cartan-Vranceanu 3-Dimensional Space**  
YILMAZ CEYLAN A., ERGİN A. A., Ugail H.  
XI.Geometri Sempozyumu, Ordu, Turkey, 1 - 05 July 2013, pp.24
- XVI. **On Curve Couples of a Biharmonic Curve in Cartan-Vranceanu 3-Dimensional Space**  
YILMAZ CEYLAN A., ERGİN A. A., Ugail H.  
XI.Geometri Sempozyumu, Ordu, Turkey, 1 - 05 July 2013, pp.24
- XVII. **Üç Boyutlu Minkowski Uzayında Bir Dönme Matrisinin Dönme Ekseninin Bulunması Üzerine**  
ÖZDEMİR M., ERGİN A. A., Palancı O., Bolat A.  
VIII. Geometri Sempozyumu, Antalya, Turkey, 29 April - 02 May 2010, pp.132-133
- XVIII. **Üç Boyutlu Minkowski Uzayında Bir Dönme Matrisinin Dönme Ekseninin Bulunması Üzerine**  
ÖZDEMİR M., ERGİN A. A., Palancı O., Bolat A.  
VIII. Geometri Sempozyumu, Antalya, Turkey, 29 April - 02 May 2010, pp.132-133
- XIX. **Minkowski Uzay Zamanında Yarı Ters Simetrik bir Reel Matris için Rodrigues Formülüne Benzer Bir Formül**  
ÖZDEMİR M., ERGİN A. A., Yılmaz A., Palancı O.  
VIII. Geometri Sempozyumu, Antalya, Turkey, 29 April - 02 May 2010, pp.134-135
- XX. **Minkowski Uzay Zamanında Yarı Ters Simetrik bir Reel Matris için Rodrigues Formülüne Benzer Bir Formül**  
ÖZDEMİR M., ERGİN A. A., Yılmaz A., Palancı O.  
VIII. Geometri Sempozyumu, Antalya, Turkey, 29 April - 02 May 2010, pp.134-135
- XXI. **Timelike Quaternions and Lorentzian Rotations**

ÖZDEMİR M., ERGİN A. A.

IV. International Geometry Symposium, Zonguldak, Turkey, 17 - 21 July 2006, pp.78

**XXII. Timelike Quaternions and Lorentzian Rotations**

ÖZDEMİR M., ERGİN A. A.

IV. International Geometry Symposium, Zonguldak, Turkey, 17 - 21 July 2006, pp.78

**XXIII. Sines and Cosines laws for hyperbolical triangles in the unit hyperboloid**

ÖZDEMİR M., ERGİN A. A.

II. Geometri Sempozyumu, Sakarya, Turkey, 30 June - 03 July 2004, pp.31

**XXIV. Sines and Cosines laws for hyperbolical triangles in the unit hyperboloid**

ÖZDEMİR M., ERGİN A. A.

II. Geometri Sempozyumu, Sakarya, Turkey, 30 June - 03 July 2004, pp.31

## Other Publications

**I. Lineer Cebir Ders Notları**

ERGİN A. A.

Lecture Note, pp.60, 1990

## Metrics

Publication: 51

Citation (WoS): 110

Citation (Scopus): 157

H-Index (WoS): 4

H-Index (Scopus): 4

## Congress and Symposium Activities

PYYK 2014 (3. Proje ve Yapım Yönetimi Kongresi), Attendee, Antalya, Turkey, 2014

III. Uluslararası Avrasya Matematik Bilimleri ve Uyg. Konferansı (IECMSA-2014), Attendee, Viyana, Austria, 2014

XII. Geometri SEMPOZYUMU, Attendee, BİLECİK, Turkey, 2014

II. Uluslararası Avrasya Matematik Bilimleri ve Uyg. Konferansı (IECMSA-2013), Attendee, Saraybosna, Bosnia And Herzegovina, 2013

XI. Geometri Sempozyumu, Ordu, Attendee, Ordu, Turkey, 2013

VIII. Geometri Sempozyumu, Antalya, Attendee, Antalya, Turkey, 2010

VII. Geometri Sempozyumu, Kırşehir, Attendee, Kırşehir, Turkey, 2009

VI. Geometri Sempozyumu, Attendee, Bursa, Turkey, 2008

IV. Geometri Sempozyumu, Attendee, Zonguldak, Turkey, 2006

III. Geometri Sempozyumu, Attendee, Eskişehir, Turkey, 2005

16th International Conf. Of Jangjeon Mathematical Soc., Attendee, Antalya, Turkey, 2005

II. Geometri sempozyumu, Attendee, Sakarya, Turkey, 2004

I. Geometri Sempozyumu, Elazığ, Attendee, Elazığ, Turkey, 2003