

## Assoc. Prof. TLAY ERİŐİR

### Personal Information

Office Phone: [+90 446 224 3032](tel:+904462243032) Extension: 40098

Email: [tulay.erisir@erzincan.edu.tr](mailto:tulay.erisir@erzincan.edu.tr)

Web: <https://avesis.ebyu.edu.tr/tulay.erisir>

### International Researcher IDs

ORCID: 0000-0001-6444-1460

Publons / Web Of Science ResearcherID: A-5609-2017

Yoksis Researcher ID: 186994

### Education Information

Doctorate, Sakarya University, Institute Of Science, Geometri, Turkey 2011 - 2016

Postgraduate, Sakarya University, Institute Of Science, Geometri, Turkey 2009 - 2011

Undergraduate, Ataturk University, Erzincan Fen Edebiyat Fakltesi, Matematik, Turkey 2005 - 2009

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, GenelleŐtirilmiŐ Kompleks Dzlemde Steiner Forml ve Holditch Tipi Teoremler, Sakarya niversitesi, Fen Bilimleri Enstits, Geometri, 2016

Postgraduate, Kuarterniyonik İnvolut-Evolt EĐri Çiftleri, Sakarya niversitesi, Fen Bilimleri Enstits, Geometri, 2011

### Research Areas

Mathematics, Differential Geometry, Geometry, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Erzincan Binali Yildirim University, Fen-Edebiyat Fakltesi, Matematik Blm, 2022 - Continues

Assistant Professor, Erzincan Binali Yildirim University, Fen-Edebiyat Fakltesi, Matematik Blm, 2017 - 2022

Assistant Professor, Erzincan Binali Yildirim University, Fen-Edebiyat Fakltesi, Matematik Blm, 2017 - 2018

Research Assistant PhD, Erzincan Binali Yildirim University, Fen-Edebiyat Fakltesi, Matematik Blm, 2016 - 2017

Research Assistant, Sakarya University, Fen Edebiyat Fakltesi, Matematik, 2012 - 2016

Research Assistant, Erzincan Binali Yildirim University, Fen-Edebiyat Fakltesi, Matematik Blm, 2010 - 2012

### Academic and Administrative Experience

## Advising Theses

- Erişir T., Öklid uzayında ardıl eğrilerin spinor gösterimi, Postgraduate, H.KÖSE(Student), 2021  
Erişir T., Öklid uzayında Mannheim eğrileri ve spinorlar, Postgraduate, Z.İSABEYOĞLU(Student), 2020  
Erişir T., Reel kuaterniyonların Hamilton matrislerinin spinorlar ile ifadesi, Postgraduate, E.YILDIRIM(Student), 2020  
Erişir T., Üç boyutlu öklid uzayında involüt-evolüt eğrilerinin spinor gösterimi, Postgraduate, N.CANSU(Student), 2019

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

- I. **Horadam Spinors**  
Erişir T.  
Journal of Mathematics, vol.2024, pp.1-9, 2024 (SCI-Expanded)
- II. **On the Dual Quaternion Geometry of Screw Motions**  
Erişir T., Mumcu G., Kızıltuğ S., Yaylı Y.  
ANALELE STIINTIFICE ALE UNIVERSITATII OVIDIUS CONSTANTA, SERIA MATEMATICA, vol.31, no.3, pp.1-20, 2023 (SCI-Expanded)
- III. **C\*-partner curves with modified adapted frame and their applications**  
Kızıltuğ S., Erişir T., Mumcu G., Yaylı Y.  
AIMS MATHEMATICS, vol.8, no.1, pp.1345-1359, 2023 (SCI-Expanded)
- IV. **On Tubular Surfaces With Modified Orthogonal Frame In Galilean Space**  
Kızıltuğ S., Çakmak A., Erişir T., Mumcu G.  
THERMAL SCIENCE, vol.26, no.2, pp.571-581, 2022 (SCI-Expanded)
- V. **On the quaternionic osculating direction curves**  
Kızıltuğ S., Erişir T., Mumcu G.  
International Journal Of Geometric Methods In Modern Physics, vol.3, pp.1-16, 2022 (SCI-Expanded)
- VI. **A New Construction of Holditch Theorem for Homothetic Motions in  $C_p$**   
Erişir T.  
Advances in Mathematical Physics, pp.1-9, 2021 (SCI-Expanded)
- VII. **On spinor construction of Bertrand curves**  
Erişir T.  
AIMS MATHEMATICS, vol.6, no.4, pp.3583-3591, 2021 (SCI-Expanded)
- VIII. **On Fibonacci Spinors**  
Erişir T., Güngör M. A.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.17, no.4, pp.1-13, 2020 (SCI-Expanded)
- IX. **The Hyperbolic Spinor Representation of Transformations in  $R^{-1}(3)$  by Means of Split Quaternions**  
Tarakcioglu M., ERİŞİR T., Gungor M. A., Tosun M.  
ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.28, no.1, 2018 (SCI-Expanded)
- X. **The Holditch-Type Theorem for the Polar Moment of Inertia of the Orbit Curve in the Generalized Complex Plane**  
ERİŞİR T., GÜNGÖR M. A., Tosun M., TOSUN M.  
ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.26, no.4, pp.1179-1193, 2016 (SCI-Expanded)
- XI. **A New Generalization of the Steiner Formula and the Holditch Theorem**  
ERİŞİR T., GÜNGÖR M. A., TOSUN M.  
ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.26, no.1, pp.97-113, 2016 (SCI-Expanded)
- XII. **Geometry of the Hyperbolic Spinors Corresponding to Alternative Frame**

## Articles Published in Other Journals

- I. **Spinor representation of directional  $q$  -frame**  
Erişir T., Eren K.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.41, no.5, pp.1013-1018, 2023 (ESCI)
- II. **On the Fundamental Spinor Matrices of Real Quaternions**  
Erişir T., Yıldırım E.  
WSEAS TRANSACTIONS ON MATHEMATICS, vol.22, pp.854-866, 2023 (Scopus)
- III. **The Spinor Expressions of Mannheim Curves in Euclidean 3-Space**  
Erişir T., İsabeyoğlu Z.  
INTERNATIONAL ELECTRONIC JOURNAL OF GEOMETRY, vol.16, no.1, pp.111-121, 2023 (ESCI)
- IV. **ON GENERALIZED KINEMATICS WITH THE POLAR MOMENT OF INERTIA FOR THE HOMOTHETIC MOTIONS IN  $C_p$**   
Erişir T., Güngör M. A.  
Asia Pacific Journal of Mathematics, vol.10, pp.1-10, 2023 (Peer-Reviewed Journal)
- V. **A Generalized Version of Holditch Theorem under Homothetic Motions in  $C_p$**   
Erişir T., Güngör M. A.  
Asia Mathematika, vol.6, no.3, pp.45-54, 2022 (Peer-Reviewed Journal)
- VI. **Spinor Equations of Successor Curves**  
ERİŞİR T., KÖSE ÖZTAŞ H.  
Universal Journal of Mathematics and Applications, vol.5, no.1, pp.32-41, 2022 (Scopus)
- VII. **Spinor Representation of Directional  $q$ -Frame**  
Erişir T., Eren K.  
Sigma Journal of Engineering and Natural Sciences, vol.2022, pp.1-10, 2022 (ESCI)
- VIII. **ON KINEMATICS FOR THE PMI DURING THE HOMOTHETIC MOTIONS IN  $C_p$**   
Erişir T.  
Asia Pacific Journal of Mathematics, vol.9, no.2, pp.1-13, 2022 (Scopus)
- IX. **Spinor Representations of Involute Evolute Curves in  $E^3$**   
Erişir T., Kardağ N. C.  
Fundamental Journal of Mathematics and Applications, vol.2, no.2, pp.148-155, 2019 (Peer-Reviewed Journal)
- X. **ON THE CONSTRUCTION OF GENERALIZED BOBILLIER FORMULA**  
ERİŞİR T., Güngör M. A., Ersoy S.  
COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS, vol.68, no.1, pp.111-124, 2019 (ESCI)
- XI. **Holditch-Type Theorem for Non-Linear Points in Generalized Complex Plane  $C_p$**   
ERİŞİR T., Güngör M. A.  
Universal Journal of Mathematics and Applications, vol.1, no.4, pp.239-243, 2018 (Peer-Reviewed Journal)
- XII. **The Cauchy-Length Formula and Holditch Theorem in the Generalized Complex Plane  $C_p$**   
ERİŞİR T., Gungor M. A.  
INTERNATIONAL ELECTRONIC JOURNAL OF GEOMETRY, vol.11, no.2, pp.111-119, 2018 (ESCI)
- XIII. **On the Quaternionic Curves in the Semi-Euclidean Space  $E_{4,2}$**   
ERİŞİR T., GÜNGÖR M. A.  
caspien journal of mathematical sciences, 2017 (Peer-Reviewed Journal)
- XIV. **On dual Lorentzian homothetic exponential motions with one parameter**  
Güngör M. A., Erişir T., Çelik M.  
Selcuk Journal of Applied Mathematics, 2016 (Peer-Reviewed Journal)
- XV. **A CONSTRUCTION OF HYPERBOLIC SPINORS ACCORDING TO FRENET FRAME IN MINKOWSKI SPACE**

KETENCİ Z., ERİŞİR T., GÜNGÖR M. A.

JOURNAL OF DYNAMICAL SYSTEMS AND GEOMETRIC THEORIES, vol.13, no.2, pp.179-193, 2015 (ESCI)

XVI. **Hyperbolic Spinor Darboux Equations of Spacelike Curves in Minkowski 3 Space**

YAKUP B., ERİŞİR T., GÜNGÖR M. A.

Journal of the Chungcheong Mathematical Society, vol.28, no.4, pp.525-535, 2015 (Peer-Reviewed Journal)

XVII. **On the Fibonacci and Lucas Curves**

AKYIĞIT M., ERİŞİR T., TOSUN M.

New Trends and Mathematical Sciences, vol.3, pp.1-10, 2015 (Peer-Reviewed Journal)

XVIII. **SOME CHARACTERIZATIONS OF QUATERNIONIC RECTIFYING CURVES IN THE SEMI EUCLIDEAN SPACE**

ERİŞİR T., GÜNGÖR M. A.

HONAM MATHEMATICAL JOURNAL, vol.36, no.1, pp.67-83, 2014 (ESCI)

XIX. **ON THE QUATERNIONIC CURVES ACCORDING TO PARALLEL TRANSPORT FRAME**

ERİŞİR T., hatice p., GÜNGÖR M. A.

TWMS J. Pure Appl. Math., vol.4, no.2, pp.194-203, 2013 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

I. **A Study on the Geometry of Dual Quaternions**

Erişir T., Mumcu G., Kızıltuğ S., Yaylı Y.

11thINTERNATIONALEURASIANCONFERENCE ONMATHematicalSciencesAND APPLICATIONS, İstanbul, Turkey, 29 August - 01 September 2021, pp.184

II. **A New Approach Tubular Surface with a new frame in  $G_3$**

Mumcu G., Çakmak A., Erişir T., Kızıltuğ S.

1st INTERNATIONAL SYMPOSIUM ON CURRENT DEVELOPMENTS IN FUNDAMENTAL AND APPLIED MATHEMATICS SCIENCES, Erzurum, Turkey, 23 - 25 May 2022, pp.167

III. **Öklid Uzayında Mannheim Eğrileri ve Spinorlar**

ERİŞİR T., İSABEYOĞLU Z.

International Mardin Artuklu Scientific Researches Conference-V, Mardin, Turkey, 15 - 16 January 2021, pp.100-101

IV. **Öklid Uzayında Successor Eğrileri ve Spinorlar**

ERİŞİR T., KÖSE ÖZTAŞ H.

International Mardin Artuklu Scientific Researches Conference-V, Mardin, Turkey, 15 - 16 January 2021, pp.98-99

V. **Hamilton Matrices of Real Quaternions and Spinors**

ERİŞİR T., YILDIRIM E.

International Conference on Mathematics and its Applications in Science and Engineering (ICMASE-2020), Ankara, Turkey, 9 - 10 July 2020, pp.169

VI. **Spinor Formulation of Bertrand Curves in  $E^3$**

Erişir T.

8th International Eurasian Conference on Mathematical Sciences and Applications,, Baku, Azerbaijan, 27 - 30 August 2019, pp.1-10

VII. **Spinor Formulation of Involute-Evolute Curves**

Erişir T., Kardağ N. C.

17 th International Geometry Symposium, Erzincan, Turkey, 19 - 22 June 2019, pp.1-10

VIII. **Hiperbolik Spinorlar Üzerine**

ERİŞİR T., GÜNGÖR M. A.

31. Ulusal Matematik Sempozyumu, Erzincan, Turkey, 12 September 2018, pp.64

IX. **Spinor Representations of Fibonacci Quaternions**

Erişir T., Güngör M. A.

7th International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2018), Kyiv, Ukraine,

28 - 31 August 2018, pp.1-10

- X. **Spinor Representation of Fibonacci Quaternions**  
ERİŞİR T., GÜNGÖR M. A.  
7nd International Eurasian Conference on Mathematical Sciences and Applications (IECMSA-2018), Kyiv, Ukraine,  
28 - 31 August 2018, pp.212
- XI. **On Fibonacci Spinors**  
Erişir T., Güngör M. A.  
16th International Geometry Symposium,, Manisa, Turkey, 4 - 07 July 2018, pp.1-10
- XII. **On the Hyperbolic Spinors and Split Quaternions**  
Erişir T., Güngör M. A.  
6th International Eurasian Conference on Mathematical Sciences and Applications, Budapest, Hungary, 15 - 18  
August 2017
- XIII. **On the Spinors, Quaternions and Rotations**  
Erişir T., Güngör M. A.  
15th International Geometry Symposium, Amasya, Turkey, 3 - 06 July 2017
- XIV. **On the Study of the Holditch Type Theorem for the Non Linear Three Points in p**  
ERİŞİR T., GÜNGÖR M. A.  
5THINTERNATIONALEURASIAN CONFERENCEONMATHEMATICAL SCIENCESANDAPPLICATIONS, Belgrade, Serbia  
And Montenegro, 16 - 19 August 2016
- XV. **The Generalized Holditch-Type Theorem for the Homothetic Motion in Cp**  
ERİŞİR T., GÜNGÖR M. A., AKYİĞİT M.  
5th International Eurasian Conference on Mathematical Sciences and Applications, Belgrade, Serbia And  
Montenegro, 16 - 19 August 2016, pp.235
- XVI. **The Cauchy-Length Formula and the Holditch Theorem for the Homothetic Motion in Cp**  
ERİŞİR T., GÜNGÖR M. A.  
5th International Eurasian Conference on Mathematical Sciences and Applications, Belgrade, Serbia And  
Montenegro, 16 - 19 August 2016, pp.233
- XVII. **On the Kinematics of the Hyperbolic Spinors and Split Quaternions**  
tarakçıoğlu m., ERİŞİR T., GÜNGÖR M. A., TOSUN M.  
14th International Geometry Symposium, Denizli, Turkey, 25 - 28 May 2016
- XVIII. **On the Study of the Holditch Theorem for the Non Linear Three Points in Cp**  
ERİŞİR T., GÜNGÖR M. A.  
3 rd INTERNATIONAL CONFERENCE ON RECENT ADVANCES IN PURE AND APPLIED MATHEMATICS, Muğla,  
Turkey, 19 - 23 May 2016
- XIX. **Holditch-Type Theorem for Homothetic Motion in the Generalized Complex Plane Cp**  
ERİŞİR T., GÜNGÖR M. A., TOSUN M.  
28. Ulusal Matematik Sempozyumu, Antalya, Turkey, 7 - 09 September 2015, pp.145
- XX. **On the Construction of Generalized Bobillier Formula**  
ERİŞİR T., GÜNGÖR M. A., ERSOY S.  
4th International Eurasian Conference on Mathematical Sciences and Applications, atina, Greece, 31 August - 03  
September 2015, pp.322-323
- XXI. **The Steiner Formula and the Holditch Theorem for Homothetic Motions in the Generalized Complex Plane**  
ERİŞİR T., GÜNGÖR M. A., TOSUN M.  
4th International Eurasian Conference on Mathematical Sciences and Applications, atina, Greece, 31 August - 03  
September 2015, pp.210-211
- XXII. **A New Generalization of the Steiner Formula and the Holditch Theorem**  
ERİŞİR T., GÜNGÖR M. A., TOSUN M.  
4th International Eurasian Conference on Mathematical Sciences and Applications, atina, Greece, 31 August - 03  
September 2015, pp.321-322
- XXIII. **A Generalized Method for Centres of Trajectories in Kinematics**

ERİŞİR T., GÜNGÖR M. A., TOSUN M.

4th INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, atina, Greece, 31 August - 03 September 2015, pp.320-321

**XXIV. Genelleştirilmiş Kompleks Düzlemde Holditch-Tipi Teorem**

ERİŞİR T., GÜNGÖR M. A., TOSUN M.

XIII. Ulusal Geometri Sempozyumu, İstanbul, Turkey, 27 - 30 July 2015, pp.22

**XXV. The Hyperbolic spinors Corresponding to Alternative Frame in Minkowski Space**

ERİŞİR T., GÜNGÖR M. A.

3rd International Eurasian Conference on Mathematical Sciences and Applications, Vienna, Austria, 25 - 28 August 2014, pp.346

**XXVI. Spinor Darboux Equations of Curves in Minkowski Space**

BALCI Y., ERİŞİR T., GÜNGÖR M. A.

XII. Ulusal Geometri Sempozyumu, Bilecik, Turkey, 23 - 26 June 2014, pp.115

**XXVII. Spinor equations of curves in Minkowski space**

ERİŞİR T., GÜNGÖR M. A.

V Congress of the Turkic World Mathematicians, Issik, Kyrgyzstan, 5 - 07 June 2014, pp.41

**XXVIII. Spinor Representation of Sabban Frame on  $S^2$**

SOYFİDAN T., GÜNGÖR M. A., TOSUN M.

2st International Eurasian Conference on Mathematical Sciences and Applications, Sarajevo, Bosnia And Herzegovina, 26 - 29 August 2013, pp.296

**XXIX. On the Fibonacci and Lucas Curves**

AKYİĞİT M., SOYFİDAN T., TOSUN M.

XI. Geometri Sempozyumu, Ordu, Turkey, 1 - 05 July 2013, pp.110

**XXX. On the Geometric Interpretation of Fibonacci and Lucas Curves**

AKYİĞİT M., SOYFİDAN T., TOSUN M.

XI. Ulusal Geometri Sempozyumu, Ordu, Turkey, 1 - 05 July 2013, pp.110

**XXXI. On the Quaternionic Curves According to Parallel Transport Frame**

PARLATIÇI H., SOYFİDAN T., GÜNGÖR M. A.

1st International Eurasian Conference on Mathematical Sciences and Applications, Pristina, Kosova, 3 - 07 September 2012, pp.214

**XXXII. On the Quaternionic Rectifying Curves in Semi-Euclidean Space  $E_2^4$**

SOYFİDAN T., GÜNGÖR M. A.

1st International Eurasian Conference on Mathematical Sciences and Applications, Pristina, Kosova, 3 - 07 September 2012, pp.215

**XXXIII. On the Quaternionic Involute Evolute Curves in the Semi Euclidean Space  $E_4^2$**

ERİŞİR T., GÜNGÖR M. A.

X. GEOMETRİ SEMPOZYUMU, Balıkesir, Turkey, 13 - 16 June 2012

**XXXIV. On the quaternionic involute-evolute curves in the semi-Euclidean space**

SOYFİDAN T., GÜNGÖR M. A.

X. Ulusal Geometri Sempozyumu, Balıkesir, Turkey, 13 - 16 June 2012, pp.82

**XXXV. ON THE QUATERNJONIC INVOLUTE EVOLUTE CURVE COUPLES**

ERİŞİR T., GÜNGÖR M. A.

IX. Geometri Sempozyumu, Samsun, Turkey, 7 - 10 June 2011

**XXXVI. Kuaterniyonik İvolüt-Evolüt Eğri Çiftleri Üzerine**

SOYFİDAN T., GÜNGÖR M. A.

IX. Ulusal Geometri Sempozyumu, Samsun, Turkey, 7 - 10 June 2011, pp.70

## Supported Projects

ERİŞİR T., ÖZKAN E., ÖZDİN T., KIZILTUĞ S., Project Supported by Higher Education Institutions, 17. Uluslararası

Geometri Sempozyumu, 2019 - 2020

ÖZKAN E., KIZILTUĞ S., GÜNDÜZ B., ERİŞİR T., ÖZDİN T., Taştan M., Project Supported by Higher Education Institutions,  
31. Ulusal Matematik Sempozyumu, 2018 - 2018

ERİŞİR T., Project Supported by Other Official Institutions, Bir Parametrelî Düzlemsel p-Hareketi İçin Genelleştirilmiş  
Holditch Teoremi, 2014 - 2016

## **Scientific Refereeing**

Honam Mathematical Journal, Other Indexed Journal, April 2014

Honam Mathematical Journal, Other Indexed Journal, December 2013

## **Metrics**

Publication: 67

Citation (WoS): 12

Citation (Scopus): 14

H-Index (WoS): 2

H-Index (Scopus): 2