

## **Assoc. Prof. GÜL TUĞ**

### **Personal Information**

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### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: AAK-1174-2021

ScopusID: 57193311652

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### **Education Information**

Doctorate, Karadeniz Technical University, Fen Bilimler Enstitüsü, Matematik, Turkey 2011 - 2017

Postgraduate, Karadeniz Technical University, Fen Bilimler Enstitüsü, Matematik, Turkey 2010 - 2011

Postgraduate, Ankara University, Fen Bilimler Enstitüsü, Matematik, Turkey 2008 - 2010

Undergraduate, Ankara University, Fen Fakültesi, Matematik, Turkey 2004 - 2008

### **Research Areas**

Mathematics, Differential Geometry, Geometry, Manifolds and Cell Complexes, Natural Sciences

### **Academic Titles / Tasks**

Karadeniz Technical University, Fen Fakültesi, Matematik, 2018 - Continues

Assistant Professor, Karadeniz Technical University, Fen Fakültesi, Matematik, 2017 - 2018

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Matematik, 2010 - 2017

### **Advising Theses**

Tuğ G., Ricci solitons on lightlike hypersurfaces, Postgraduate, A.ARFAH(Student), 2021

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

#### **I. Elliptical kinematics of the accretive surface growth**

Özdemir Z., TUĞ G.

Turkish Journal of Mathematics, vol.46, no.3, pp.728-745, 2022 (SCI-Expanded)

#### **II. Accretive Darboux growth in Lorentz–Minkowski spacetime**

TUĞ G., Özdemir Z., GÖK İ.

Mathematical Methods in the Applied Sciences, vol.44, no.8, pp.6857-6875, 2021 (SCI-Expanded)

#### **III. Minimal twist accretive growth with spatial curve evolution**

- TUĞ G.  
 Mathematical Methods in the Applied Sciences, 2021 (SCI-Expanded)
- IV. **Accretive growth kinematics via null evolution curve**  
 ÖZDEMİR Z., TUĞ G.  
 MATHEMATICAL METHODS IN THE APPLIED SCIENCES, vol.43, no.18, pp.10430-10440, 2020 (SCI-Expanded)
- V. **Notes on the Lightlike Hypersurfaces Along Spacelike Submanifolds**  
 Tug G., Ekmekci F. N.  
 UKRAINIAN MATHEMATICAL JOURNAL, 2019 (SCI-Expanded)
- VI. **Accretive Darboux growth along a space curve**  
 TUĞ G., Ozdemir Z., GÖK İ., Ekmekci F. N.  
 APPLIED MATHEMATICS AND COMPUTATION, vol.316, pp.516-524, 2018 (SCI-Expanded)
- VII. **Accretive growth kinematics in Minkowski 3-space**  
 TUĞ G., Ozdemir Z., AYDIN S. H., EKMEKCİ F. N.  
 INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.14, no.5, 2017 (SCI-Expanded)

### Articles Published in Other Journals

- I. **CONSTANT PSEUDO-ANGLE LIGHTLIKE SURFACES**  
 Tuğ G.  
 COMMUNICATIONS FACULTY OF SCIENCES UNIVERSITY OF ANKARA-SERIES A1 MATHEMATICS AND STATISTICS,  
 vol.72, no.2, pp.1-24, 2023 (ESCI)
- II. **Canal Surfaces Through a Null Quaternionic Spine Curve**  
 TUĞ G.  
 Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.9, no.2, pp.721-729, 2022 (Peer-Reviewed Journal)
- III. **On the spherical indicatrices of a timelike curve as generalized helices in Minkowski 3-space**  
 ARFAH A., TUĞ G.  
 Konuralp Journal of Mathematics, vol.10, no.1, pp.50-54, 2022 (Peer-Reviewed Journal)
- IV. **Construction of the Null Scrolls along Lightlike Submanifolds in R- $\uparrow$ (m+n)**  
 TUĞ G., Ekmekci F. N.  
 INTERNATIONAL ELECTRONIC JOURNAL OF GEOMETRY, vol.10, no.1, pp.31-38, 2017 (ESCI)
- V. **On the Special Curves in Minkowski 4 Spacetime**  
 TUĞ G., Ekmekci N.  
 Mathematica Aeterna, vol.4, pp.863-867, 2014 (Peer-Reviewed Journal)
- VI. **On the spherical curves and Bertrand curves in Minkowski-3 space**  
 TUĞ G., Ekmekci N.  
 Journal of Mathematical and Computational Science, vol.2, pp.898-906, 2012 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Accretive growth kinematics with elastic curves**  
 TUĞ G.  
 2nd International Conference on Applied Engineering and Natural Sciences (ICAENS 2022), Konya, Turkey, 10 - 13 March 2022, pp.230-236
- II. **ON THE EVOLUTION OF A PLANE CURVE USING HYPERBOLICAL KINEMATICS**  
 TUĞ G.  
 8th International IFS and Contemporary Mathematics Conference (IFSCOM2022), Mersin, Turkey, 16 - 19 June 2022, pp.49-50
- III. **A study on the lightlike surfaces and pseudo angles**  
 TUĞ G.

5th International Conference on Mathematical Advances and Applications (ICOMAA-2022), İstanbul, Turkey, 11 - 14 May 2022

**IV. Accretive Growth Kinematics via Rotation Minimizing Frame**

TUĞ G.

8th International Conference on Recent Advances in Pure and Applied Mathematics (ICRAPAM2021), Bodrum, Turkey, 24 - 27 September 2021

**V.  $\eta$ -Ricci solitons on lightlike hypersurfaces**

TUĞ G., ARFAH A.

18th International Geometry Symposium, Malatya, Turkey, 12 - 13 July 2021

**VI. Accretive Darboux Growth in Minkowski Spacetime**

TUĞ G., ÖZDEMİR Z., GÖK İ.

International E-Conference on Mathematical Advances and Application (ICOMAA2020), İstanbul, Turkey, 24 - 27 June 2020

**VII. Surface Growth Kinematics in Galilean Space**

ÖZDEMİR Z., TUĞ G., GÖK İ., EKMEKCİ F. N.

16th International Geometry Symposium 2018, Manisa, Turkey, 4 - 07 July 2018

**VIII. Accretive Darboux Growth Along a Space curve**

TUĞ G., Özdemir Z., Ekmekci F. N., Gök İ.

15. Geometri Sempozyumu, Amasya, Turkey, 3 - 06 July 2017, pp.79

**IX. Characterization of Null Scrolls in  $R_v^{m+n}$**

TUĞ G., EKMEKCİ F. N.

4th INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS (IECMSA2015), Atina, Greece, 31 August - 03 September 2015, pp.183

**X. Surface Growth Kinematics in Minkowski 3 Space**

TUĞ G., Özdemir Z., Ekmekci N.

IECMSA 2015, Athens, Greece, 31 August - 03 September 2015, pp.292

**XI. Characterization of Null Scrolls in  $R^{m+n}$**

TUĞ G., Ekmekci N.

IECMSA 2015, Athens, Greece, 31 August - 03 September 2015, pp.183

**XII. Lightlike Altmanifoldlar Boyunca Null Scroll Hiperyüzeyler**

TUĞ G., Ekmekci N.

13. Geometri Sempozyumu, İstanbul, Turkey, 27 - 30 July 2015, pp.89

**XIII. On the Lightlike Ruled Hypersurfaces Based on Spacelike Submanifolds**

TUĞ G., Ekmekci N.

IECMSA, Vienna, Austria, 25 - 28 August 2014, pp.326-327

**XIV. Structure of the lightlike hypersurfaces along spacelike submanifolds**

TUĞ G., Ekmekci N.

Karatekin Mathematics Days 2014, Çankırı, Turkey, 11 - 13 June 2014, pp.214

**XV. A Study on the Spherical Curves and Bertrand Curves in Minkowski 4 Spacetime**

GÜNER G., EKMEKCİ N., SAĞIROĞLU Y.

1st International Eurasian Conference on Mathematical Sciences and Applications, Prishtine, Kosova, 3 - 07 September 2012, pp.338

**XVI. A Study on the Spherical Null Curves and Bertrand Curves in Minkowski 4-Spacetime**

TUĞ G., Ekmekci N., SAĞIROĞLU Y.

IECMSA 2012, Prishtine, Kosova, 3 - 07 September 2012, pp.338

**XVII. Spherical curves and Bertrand Curves in 3 Dimensional Minkowski Space**

TUĞ G., Ekmekci N.

IX. Geometri Sempozyumu, Samsun, Turkey, 7 - 10 June 2011, pp.60-61

**XVIII. Küresel Timelike Eğriler ve Bertrand Eğrileri**

TUĞ G., Ekmekci N.

9. Matematik Sempozyumu Sergi ve Şenlikleri, Trabzon, Turkey, 20 - 22 October 2010, pp.185-186

## **Other Publications**

- I. Spacelike Altmanifoldlar Boyunca Lightlike Hiperyüzeyler  
TUĞ G.  
Presentation, pp.30, 2014

## **Scientific Refereeing**

Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Other Indexed Journal, September 2018

## **Metrics**

Publication: 32  
Citation (WoS): 7  
Citation (Scopus): 17  
H-Index (WoS): 2  
H-Index (Scopus): 3

## **Congress and Symposium Activities**

Accretive Darboux Growth along a Space Curve, Attendee, Amasya, Turkey, 2017  
Surface Growth Kinematics in Minkowski 3 Space, Attendee, Athína, Greece, 2015  
Characterization of Null Scrolls in  $R^{m+n}$ , Attendee, Athína, Greece, 2015  
Lightlike Altmanifoldlar Boyunca Null Scroll Hiperyüzeyler, Attendee, İstanbul, Turkey, 2015  
On the Lightlike Ruled Hypersurfaces Based on Spacelike Submanifolds, Attendee, Wien, Austria, 2014  
Structure of the lightlike hypersurfaces along spacelike submanifolds, Attendee, Çankırı, Turkey, 2014  
A Study on the Spherical Null Curves and Bertrand Curves in Minkowski 4-Spacetime, Attendee, Prishtine, Kosova, 2012  
SPHERICAL CURVES AND BERTRAND CURVES IN 3 DIMENSIONAL MINKOWSKI SPACE, Attendee, Samsun, Turkey, 2011  
Küresel Timelike Eğriler ve Bertrand Eğrileri, Attendee, Trabzon, Turkey, 2010