

## Assoc. Prof. İBRAHİM ÜNAL

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-9109-2020

ScopusID: 57210680658

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### Education Information

Doctorate, State University of New York at Stony Brook, Mathematics, United States Of America 2000 - 2007

Undergraduate, Middle East Technical University, Faculty of Education, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 1995 - 1999

### Dissertations

Doctorate, Phi-Critical Submanifolds and Convexity in Calibrated Geometry, State University Of New York At Stony Brook, Mathematics, 2007

### Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2015 - Continues

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2010 - 2018

### Courses

DIFFERENTIABLE MANIFOLDS, Postgraduate, 2017 - 2018

INTRODUCTION TO DIFFERENTIAL EQUATIONS, Undergraduate, 2018 - 2019

CALCULUS OF FUNCTIONS OF SEVERAL VARIABLES, Undergraduate, 2017 - 2018

CALCULUS WITH ANALYTIC GEOMETRY, Undergraduate, 2018 - 2019

DIFFERENTIAL GEOMETRY, Undergraduate, 2017 - 2018

### Advising Theses

ÜNAL İ., Exceptional Lie algebra  $G_2$  and its representations, Postgraduate, M.MUSTAFA(Student), 2022

ÜNAL İ., Discretization of Laplace-Beltrami operator, Postgraduate, I.ÇAKAR(Student), 2022

ÜNAL İ., ÖNSİPER M. H., Some problems on the geometry of calibrated manifolds, Doctorate, E.YALÇINKAYA(Student),

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

- I. **On symplectic 8-manifolds admitting Spin(7)-structure**  
Yalcinkaya E., ÜNAL İ.  
TURKISH JOURNAL OF MATHEMATICS, vol.44, no.5, pp.1792-1801, 2020 (SCI-Expanded)
- II. **A note on the Gauss maps of Cayley-free embeddings into spin(7)-manifolds**  
Ünal İ.  
DIFFERENTIAL GEOMETRY AND ITS APPLICATIONS, vol.61, pp.1-8, 2018 (SCI-Expanded)
- III. **h-Principle phi-free embeddings in calibrated manifolds**  
Unal I.  
INTERNATIONAL JOURNAL OF MATHEMATICS, vol.26, no.7, 2015 (SCI-Expanded)
- IV. **Fiber structures of special (4+3+1) warped-like manifolds with Spin(7) holonomy**  
UĞUZ S., ÜNAL İ.  
INTERNATIONAL JOURNAL OF GEOMETRIC METHODS IN MODERN PHYSICS, vol.11, no.8, 2014 (SCI-Expanded)
- V. **A note on critical values of calibrations**  
Unal I.  
DIFFERENTIAL GEOMETRY AND ITS APPLICATIONS, vol.31, no.1, pp.29-32, 2013 (SCI-Expanded)
- VI. **Topology of phi-convex domains in calibrated manifolds**  
Unal I.  
BULLETIN OF THE BRAZILIAN MATHEMATICAL SOCIETY, vol.42, no.2, pp.259-275, 2011 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **From Minimal Surfaces to Calibrated Submanifolds**  
ÜNAL İ.  
Workshop on Pure and Applied Mathematics, 28 - 30 November 2019
- II. **Similarities between Complex and Calibrated Geometries**  
ÜNAL İ.  
Atılım Geometri Topoloji Çalıştayı, Turkey, 15 - 16 May 2015
- III. **Critical Values of Calibrations and Minimal Submanifolds**  
ÜNAL İ.  
2015 Joint Mathematics Meetings, San Antonio, 10 - 13 January 2015
- IV. **Kalibre Edilmiş Manifoldlarda Potansiyel Teorisi**  
ÜNAL İ.  
27. Ulusal Matematik Sempozyumu, Turkey, 26 - 29 August 2014
- V. **Fiber Structures of Special 4 3 1 Warped like Manifolds with Spin 7 holonomy**  
ÜNAL İ., UĞUZ S.  
9. Ankara Matematik Günleri, Turkey, 12 - 13 June 2014
- VI. **Phi critical Submanifolds of Calibrated Manifolds**  
ÜNAL İ.  
Conference on Geometry, İstanbul, Turkey, 19 - 23 March 2014
- VII. **free Submanifolds and Convexity in Calibrated Manifolds**  
ÜNAL İ.  
2014 Joint Mathematics Meetings, Baltimore, Baltimore, United States Of America, 15 - 18 January 2014
- VIII. **h principle and Phi free Embeddings in Calibrated Manifolds**  
ÜNAL İ.  
8. Ankara Matematik Günleri, Turkey, 13 - 14 June 2013

## **IX. Topology of Phi free Submanifolds**

ÜNAL İ.

İzmir Algebraic Geometric Topology Days II, İzmir, Turkey, 9 - 14 January 2011

## **X. Examples of Phi critical Submanifolds**

ÜNAL İ.

4. Ankara Matematik Günleri, Turkey, 4 - 05 June 2009

## **Supported Projects**

ÜNAL İ., Project Supported by Higher Education Institutions,  $G_2$  veya  $Spin(7)$  Dolanıma Sahip Kalibre Edilmiş Manifoldlardaki  $\Phi$ -Özgür Altmanifoldların Geometrisi / Geometry of  $\Phi$ -Free Submanifolds in Calibrated Manifolds with  $G_2$  or  $Spin(7)$  Holonomy, 2016 - 2017

## **Activities in Scientific Journals**

Communications Faculty of Sciences University of Ankara Series A2-A3: Physical Sciences and Engineering, Editor, 2022 - Continues

## **Scientific Refereeing**

TURKISH JOURNAL OF MATHEMATICS, Journal Indexed in SCI-E, June 2023

## **Metrics**

Publication: 16

Citation (WoS): 7

Citation (Scopus): 8

H-Index (WoS): 2

H-Index (Scopus): 2