## Assoc. Prof. İBRAHİM ÜNAL

## **Personal Information**

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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 G2 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 MinimalSubmanifolds
	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 CalibratedManifolds
	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