Assoc. Prof. TOLGA KARAYAYLA

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-7061-2020

ScopusID: 54393318700

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Education Information

Doctorate, University of Pennsylvania, School of Arts and Sciences, Department of Mathematics, United States Of America 2006 - 2011

Undergraduate Minor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 2003 - 2005

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, Turkey 2002 - 2005

Dissertations

Doctorate, The Classification of Automorphism Groups of Rational Elliptic Surfaces with Section, University of Pennsylvania, School of Arts and Sciences, Department of Mathematics, 2011

Research Areas

Mathematics, Algebraic Geometry

Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2017 - Continues

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Mathematics, 2012 - 2017

Advising Theses

Karayayla T., Computation of the primary decomposition of polynomial ideals using Gröbner bases, Postgraduate, B.TOLGAY(Student), 2021

Published journal articles indexed by SCI, SSCI, and AHCI

I. **On a class of non-simply connected Calabi-Yau 3-folds with positive Euler characteristic**
Karayayla T.
COMMUNICATIONS IN NUMBER THEORY AND PHYSICS, vol.16, no.1, pp.159-213, 2022 (SCI-Expanded)

II. **Non-simply connected Calabi-Yau threefolds constructed as quotients of Schoen threefolds**
KARAYAYLA T.
JOURNAL OF GEOMETRY AND PHYSICS, vol.117, pp.267-276, 2017 (SCI-Expanded)

III. **Automorphism groups of rational elliptic surfaces with section and constant J-map**
Karayayla T.
CENTRAL EUROPEAN JOURNAL OF MATHEMATICS, vol.12, no.12, pp.1772-1795, 2014 (SCI-Expanded)

IV. **The classification of automorphism groups of rational elliptic surfaces with section**
Karayayla T.
ADVANCES IN MATHEMATICS, vol.230, no.1, pp.1-54, 2012 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **Pozitif Euler karakteristikli ve basit bağlantılı olmayan Calabi-Yau 3-katlıları üzerine**
Karayayla T.
33. Ulusal Matematik Sempozyumu, İstanbul, Turkey, 31 August - 03 September 2021, pp.75

II. **Tekil Schoen 3-katlılarının küçük çözülmelerle desingularizasyonlrı ve grup etkisi altında bölüm Calabi-Yau 3-katlıları**
Karayayla T.
32. Ulusal Matematik Sempozyumu, Samsun, Turkey, 31 August - 03 October 2019, pp.1

III. **Tekil Schoen 3-katlılarının desingularizasyonlerı üzerinde sabit noktasız sonlu grup etkileri ve bölüm Calabi-Yau 3-katlıları**
Karayayla T.
14. Ankara Matematik Günleri, Ankara, Turkey, 28 - 29 June 2019, pp.115

IV. **Rasyonel eliptik yüzeylerin özyapı dönüşüm gruplarının sınıflandırılması ve basit bağlı olmayan Calabi-Yau 3-katlılarına uygulamaları**
Karayayla T.
30. Ulusal Matematik Sempozyumu, Ankara, Turkey, 6 - 09 September 2017, pp.14

V. **Finite Groups which Act Freely on Smooth Schoen Threefolds**
Karayayla T.
Fall Southeastern Section Meeting of the AMS, North Carolina State University, Raleigh, North Carolina, United States Of America, 12 - 13 November 2016, pp.77

VI. **Finite and Fixed Point Free Group Actions on Fiber Products of Rational Elliptic Surfaces**
Karayayla T.
Antalya Algebra Days XVIII, İzmir, Turkey, 18 - 22 May 2016, pp.27

VII. **Basit Bağlı Olmayan Calabi Yau 3 katlılarının İnşası Üzerine**
Karayayla T.
10. Ankara Matematik Günleri, Ankara, Turkey, 11 - 12 June 2015, pp.76

VIII. **Automorphism Groups of Rational Elliptic Surfaces with Section and Constant J Map**
Karayayla T.
Fall Eastern Section Meeting of the AMS, Temple University, Philadelphia, Pennsylvania, United States Of America, 12 - 13 October 2013, pp.70-71

IX. **On the Structure of Automorphism Groups of Rational Elliptic Surfaces**
Karayayla T.
International Conference on Algebra in Honour of Patrick Smith and John Clark's 70th Birthdays, Balıkesir, Turkey, 12 - 15 August 2013, pp.82

X. **Automorphism Groups of Rational Elliptic Surfaces with Section**

Karayayla T.

Antalya Algebra Days XIV, İzmir, Turkey, 16 - 20 May 2012, pp.9

XI. **Classification of automorphism groups of rational elliptic surfaces**

Karayayla T.

Joint Mathematics Meeting of the AMS and MAA, New Orleans, Louisiana, United States Of America, 6 - 09 January 2011, vol.32, no.163, pp.425

XII. **Automorphism groups of rational elliptic surfaces**

Karayayla T.

Midwest Algebraic Geometry Graduate Conference, University of Wisconsin, Madison, Wisconsin, United States Of America, 23 - 24 October 2010

XIII. **Automorphism Groups of Rational Elliptic Surfaces**

Karayayla T.

AGNES (Algebraic Geometry North Eastern Series) 2010 Fall, Connecticut, United States Of America, 24 - 26 September 2010

XIV. **Classifying Symmetries of Rational Elliptic Surfaces with Section**

Karayayla T.

MAA MathFest 2010, Pittsburgh, Pennsylvania, United States Of America, 5 - 07 August 2010, pp.68

XV. **Automorphisms of Rational Elliptic Surfaces with Section**

Karayayla T.

Eighth International Meeting of the AMS and the SSM, University of California, Berkeley, California, United States Of America, 2 - 04 June 2010, pp.35-36

Supported Projects

KARAYAYLA T., Project Supported by Higher Education Institutions, Tekil Schoen 3-katlılarının çözülmeleri (resolution) üzerine serbest etkiyen sonlu gruplar ve grup etkisinin bölüm uzayı olan basit bağlantılı olmayan Calabi-Yau 3-katlıları, 2018 - 2021

KARAYAYLA T., Project Supported by Higher Education Institutions, Kesitli Eliptik Yüzeyler, Özyapi Dönüsüm Gruplari ve Uygulamalari, 2013 - 2015

Tasks In Event Organizations

Karayayla T., Coşkun E., Kişisel A. U. Ö., Genç Ö., Conference on ACM Bundles on Algebraic Varieties, Scientific Congress, Ankara, Turkey, Haziran 2015

Metrics

Publication: 20
Citation (WoS): 14
Citation (Scopus): 14
H-Index (WoS): 2
H-Index (Scopus): 2