

# Prof. MESUT ŞAHİN

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: H-5117-2018

ScopusID: 34880777100

Yoksis Researcher ID: 102830

## Education Information

Doctorate, Ihsan Dogramaci Bilkent University, Mühendislik Ve Fen Bilimleri Ens., Matematik, Turkey 2002 - 2008

Postgraduate, Ihsan Dogramaci Bilkent University, Mühendislik Ve Fen Bilimleri Ens., Matematik, Turkey 2000 - 2002

Undergraduate, Akdeniz University, Faculty Of Science, Matematik, Turkey 1997 - 2000

Undergraduate, Selcuk University, Faculty Of Science, Matematik, Turkey 1996 - 1997

## Foreign Languages

English, C1 Advanced

## Research Areas

Mathematics, Algebraic Geometry, Commutative Rings and Algebras, Combinatorics, Natural Sciences

## Academic Titles / Tasks

Professor, Hacettepe University, Fen Fakültesi, Matematik Bölümü, 2022 - Continues

Associate Professor, Hacettepe University, Fen Fakültesi, Matematik Bölümü, 2014 - 2022

Associate Professor, Cankiri Karatekin University, Faculty Of Science, Department Of Mathematics, 2012 - 2014

Assistant Professor, Cankiri Karatekin University, Faculty Of Science, Department Of Mathematics, 2010 - 2012

## Academic and Administrative Experience

Çankırı Karatekin Üniversitesi, Fen Fakültesi, Matematik Bölümü, 2013 - 2014

## Advising Theses

Şahin M., On the minimum distance of a toric code via vanishing ideal, Doctorate, F.BALDEMİR(Student), 2023  
Şahin M., Simitli çeşitlem üzerinde üzerinde parametrik kodlar ve sıfırlayan idealler, Doctorate, E.BARAN(Student), 2021  
Şahin M., Ağırlıklı projektif uzaylardaki parametrik kodlar, Postgraduate, Y.ÇAKIROĞLU(Student), 2019  
ŞAHİN M., Simitli bir çeşitlemin genişlemeleri üzerinde hesaplama kodları, Postgraduate, Y.YAKUT(Student), 2017

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

- I. **Algebraic invariants of codes on weighted projective planes**  
Cakiroglu Y., ŞAHİN M.  
JOURNAL OF ALGEBRA AND ITS APPLICATIONS, 2024 (SCI-Expanded)
- II. **Rational points of lattice ideals on a toric variety and toric codes**  
ŞAHİN M.  
Finite Fields and their Applications, vol.90, 2023 (SCI-Expanded)
- III. **On parameterized toric codes**  
Baran E., ŞAHİN M.  
APPLICABLE ALGEBRA IN ENGINEERING COMMUNICATION AND COMPUTING, vol.34, no.3, pp.443-467, 2023 (SCI-Expanded)
- IV. **Codes on subgroups of weighted projective tori**  
ŞAHİN M., YAYLA O.  
Designs, Codes, and Cryptography, 2023 (SCI-Expanded)
- V. **Gluing semigroups and strongly indispensable free resolutions**  
ŞAHİN M., Stella L. G.  
INTERNATIONAL JOURNAL OF ALGEBRA AND COMPUTATION, vol.29, no.2, pp.263-278, 2019 (SCI-Expanded)
- VI. **BETTI NUMBERS FOR CERTAIN COHEN-MACAULAY TANGENT CONES**  
ŞAHİN M., Sahin N.  
BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY, vol.99, no.1, pp.68-77, 2019 (SCI-Expanded)
- VII. **LIFTINGS OF A MONOMIAL CURVE**  
ŞAHİN M.  
BULLETIN OF THE AUSTRALIAN MATHEMATICAL SOCIETY, vol.98, no.2, pp.230-238, 2018 (SCI-Expanded)
- VIII. **Toric codes and lattice ideals**  
ŞAHİN M.  
FINITE FIELDS AND THEIR APPLICATIONS, vol.52, pp.243-260, 2018 (SCI-Expanded)
- IX. **On pseudo symmetric monomial curves**  
ŞAHİN M., Sahin N.  
COMMUNICATIONS IN ALGEBRA, vol.46, no.6, pp.2561-2573, 2018 (SCI-Expanded)
- X. **Multigraded Hilbert functions and toric complete intersection codes**  
ŞAHİN M., Soprunov I.  
JOURNAL OF ALGEBRA, vol.459, pp.446-467, 2016 (SCI-Expanded)
- XI. **Toric ideals of simple surface singularities**  
Kaya G., Mete P., Sahin M.  
HACETTEPE JOURNAL OF MATHEMATICS AND STATISTICS, vol.44, no.5, pp.1057-1069, 2015 (SCI-Expanded)
- XII. **Equations Defining Recursive Extensions as Set Theoretic Complete Intersections**  
Tran Hoai Ngoc Nhan T. H. N. N., ŞAHİN M.  
TOKYO JOURNAL OF MATHEMATICS, vol.38, no.1, pp.273-282, 2015 (SCI-Expanded)
- XIII. **On free resolutions of some semigroup rings**  
BARUCCI V., Froberg R., Sahin M.  
JOURNAL OF PURE AND APPLIED ALGEBRA, vol.218, no.6, pp.1107-1116, 2014 (SCI-Expanded)
- XIV. **Extensions of Toric Varieties**  
Sahin M.  
ELECTRONIC JOURNAL OF COMBINATORICS, vol.18, no.1, 2011 (SCI-Expanded)

- XV. **Hilbert basis of the Lipman semigroup**  
Sahin M.  
COMPTES RENDUS MATHEMATIQUE, vol.348, pp.1311-1314, 2010 (SCI-Expanded)
- XVI. **On Symmetric Monomial curves in P-3**  
Sahin M.  
TURKISH JOURNAL OF MATHEMATICS, vol.33, no.2, pp.107-110, 2009 (SCI-Expanded)
- XVII. **GLUING AND HILBERT FUNCTIONS OF MONOMIAL CURVES**  
Arslan F., Mete P., Sahin M.  
PROCEEDINGS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.137, no.7, pp.2225-2232, 2009 (SCI-Expanded)
- XVIII. **PRODUCING SET-THEORETIC COMPLETE INTERSECTION MONOMIAL CURVES IN P-n**  
Sahin M.  
PROCEEDINGS OF THE AMERICAN MATHEMATICAL SOCIETY, vol.137, no.4, pp.1223-1233, 2009 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Calculating the Minimum Distance of a Toric Code via Algebraic Algorithms**  
Baldemir F., ŞAHİN M.  
Mathematics in Computer Science, vol.17, no.3-4, 2023 (ESCI)

## Books & Book Chapters

- I. **Lattice Ideals, Semigroups and Toric Codes**  
ŞAHİN M.  
in: Numerical Semigroups, Valentina Barucci, Scott Chapman, Marco D'Anna, Ralf Fröberg, Editor, Springer International Publishing, pp.285-302, 2020

## Refereed Congress / Symposium Publications in Proceedings

- I. **Evaluation Codes on Toric Varieties**  
ŞAHİN M.  
International Conference on Mathematical Studies and Applications 2018, Karaman, Turkey, 4 - 06 October 2018
- II. **On Pseudo Symmetric Monomial Curves**  
ŞAHİN M.  
International meeting on numerical semigroups with applications, Levico Terme, Italy, 4 - 08 July 2016
- III. **Indispensable free resolutions**  
ŞAHİN M.  
ANTALYA ALGEBRA DAYS 17, 20 - 24 May 2015

## Supported Projects

ŞAHİN M., TUBITAK Project, Simitli Cebirsel Geometri Ve Kodlama Teorisine Uygulamaları, 2019 - 2022  
ŞAHİN M., TUBITAK Project, Simitli Çeşitlemler (Torsal Varyeteler) Ve Uygulamaları, 2014 - 2017

## Metrics

Publication: 23

Citation (WoS): 62

Citation (Scopus): 82

H-Index (WoS): 5

H-Index (Scopus): 6