

## Assoc. Prof. Mustafa SARI

### Personal Information

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### International Researcher IDs

ScholarID: YNINlu0AAAAJ

ORCID: 0000-0003-3666-7635

Publons / Web Of Science ResearcherID: AAZ-5678-2020

ScopusID: 56825364800

Yoksis Researcher ID: 27628

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, Turkey 2013 - 2019

Postgraduate, Yildiz Technical University, Fen-Edebiyat/Matematik, Matematik, Turkey 2011 - 2013

Undergraduate, Yildiz Technical University, Fen Edebiyat Fakültesi, Matematik, Turkey 2006 - 2011

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, The Construction of Quantum Maximum Distance Separable Codes from Constacyclic Codes, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Matematik, 2019

Postgraduate, Klasik Lineer Kodlardan Kuantum Kod Elde Etme, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Matematik, 2013

### Research Areas

Mathematics, Field Theory and Polynomials, Commutative Rings and Algebras, Natural Sciences

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2024 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2023 - Continues

Research Assistant PhD, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2020 - 2023

Assistant Professor, Dogus University, Faculty Of Engineering, Department Of Industrial Engineering, 2019 - 2020

Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2013 - 2019

## Jury Memberships

Post Graduate, Post Graduate, Yıldız Teknik Üniversitesi, July, 2024

Post Graduate, Post Graduate, Üsküdar Üniversitesi, February, 2024

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

- I. **Additive double polycyclic codes over  $F_{p^2}$  and their applications to quantum codes**  
Sarı M.  
JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, vol.69, pp.4045-4068, 2023 (SCI-Expanded)
- II. **Skew Constacyclic Codes over a Non-Chain Ring**  
KÖROĞLU M. E., SARI M.  
Entropy, vol.25, no.3, 2023 (SCI-Expanded)
- III. **m-ADIC RESIDUE CODES OVER THE RING  $F_q[v]/(v^s - v)$  AND THEIR APPLICATIONS TO QUANTUM CODES**  
Kuruz F., Sarı M., Köroğlu M. E.  
QUANTUM INFORMATION & COMPUTATION, vol.22, no.5-6, pp.427-439, 2022 (SCI-Expanded)
- IV. **New Entanglement-Assisted Quantum MDS Codes with Maximal Entanglement**  
SARI M., KÖROĞLU M. E.  
INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.60, no.1, pp.243-253, 2021 (SCI-Expanded)
- V. **Quantum codes from codes over the ring  $F_q + \alpha F_q$**   
GÜZELTEPE M., SARI M.  
QUANTUM INFORMATION PROCESSING, vol.18, no.12, 2019 (SCI-Expanded)
- VI. **An application of constacyclic codes to entanglement-assisted quantum MDS codes**  
Sarı M., Kolotoğlu E.  
COMPUTATIONAL & APPLIED MATHEMATICS, vol.38, 2019 (SCI-Expanded)
- VII. **QUANTUM CODES WITH IMPROVED MINIMUM DISTANCE**  
Kolotoğlu E., Sarı M.  
BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.56, pp.609-619, 2019 (SCI-Expanded)
- VIII. **On MDS Negacyclic LCD Codes**  
Köroğlu M. E., Sarı M.  
FILOMAT, vol.33, pp.1-12, 2019 (SCI-Expanded)
- IX. **ON QUANTUM CODES FROM CYCLIC CODES OVER A CLASS OF NONCHAIN RINGS**  
SARI M., Siap I.  
BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.53, no.6, pp.1617-1628, 2016 (SCI-Expanded)
- X. **QUANTUM CODES OVER A CLASS OF FINITE CHAIN RINGS**  
SARI M., Siap I.  
QUANTUM INFORMATION & COMPUTATION, vol.16, pp.39-49, 2016 (SCI-Expanded)
- XI. **ONE-HOMOGENEOUS WEIGHT CODES OVER FINITE CHAIN RINGS**  
SARI M., Siap I., Siap V.  
BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.52, no.6, pp.2011-2023, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **One Weight Codes Over the Ring  $F_q[v]/(v^s - 1)$**   
Sarı M.  
Journal of Engineering Technology and Applied Sciences, vol.8, no.1, pp.35-47, 2023 (Peer-Reviewed Journal)
- II. **A Different Construction for Some Classes of Quantum MDS Codes**  
Sarı M., Kolotoğlu E.

## Papers Published in Refereed Scientific Meetings

- I. **Operator MDS Quantum Error Correcting Codes of Length  $(q^2-1)/\lambda$**   
Sarı M.  
4th International Congress on Multidisciplinary Natural Sciences and Engineering, Ankara, Turkey, 7 - 08 December 2024, pp.319-326
- II. **On the generators of  $F_2F_4$ -skew cyclic codes**  
Sarı M., Aydoğdu İ.  
2<sup>nd</sup> International Symposium on current developments in fundamental and applied mathematics sciences, Ankara, Turkey, 14 - 17 November 2023, pp.55
- III. **Additive polycyclic codes over  $F_p^2$  for any prime  $p$**   
Sarı M., Köroğlu M. E.  
2nd International Conference on Engineering, Natural and Social Sciences, Konya, Turkey, 4 - 06 April 2023, pp.6-9
- IV. **Skew constacyclic codes over a nonchain ring**  
Köroğlu M. E., Sarı M.  
26th International Conference on Applications on Computer Algebra (ACA-2021), Valladolid, Spain, 23 - 27 July 2021, pp.140-142
- V.  **$m$ -adic residue codes over  $F_q[v]/(v^s - v)$  and their applications to quantum codes**  
Kürüz F., Sarı M., Köroğlu M. E.  
7th International Congress on Fundamental and Applied Sciences 2020 (ICFAS2020), Priştine, Kosovo, 6 - 08 October 2020, pp.1
- VI. **New entanglement-assisted quantum mds codes with maximal entanglement**  
Köroğlu M. E., Sarı M.  
7th International Congress on Fundamental and Applied Sciences 2020 (ICFAS2020), Priştine, Kosovo, 6 - 08 October 2020, pp.1
- VII. **An application of constacyclic codes to entanglement-assisted quantum codes**  
Sarı M., Kolotoğlu E.  
International Conference on Mathematics and Mathematics Education, Ordu, Turkey, 27 - 29 June 2018, pp.29-30
- VIII. **On MDS negacyclic LCD codes**  
Sarı M., Köroğlu M. E.  
International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.218
- IX. **Negacyclic Hermitian LCD codes**  
Köroğlu M. E., Sarı M.  
International Conference on Mathematics and Engineering, İstanbul, Turkey, 10 - 12 May 2017, pp.362
- X. **From codes over  $F_q+?F_q$  to quantum codes**  
SARI M., Güzeltepe M., ŞİAP İ.  
International Conference on Quantum Science and Applications(ICQSA-2016), Eskişehir, Turkey, 25 May 2016, pp.142
- XI. **Quantum Codes from Cyclic Codes over A Class of Nonchain Rings**  
Sarı M., Siap I.  
6th International Conference on Modeling, Simulation, and Applied Optimization (ICMSAO), İstanbul, Turkey, 27 - 29 May 2015
- XII. **Quantum codes over a class of finite chain ring**  
Sarı M., Siap I.  
3rd Eurasian Conference on Mathematical Science and Applications, Vienna, Austria, 25 - 28 August 2014, pp.294
- XIII. **Type II codes obtained via a chain ring and Quantum codes**  
Sarı M., Siap V., Siap İ.  
2nd International Eurasian on Mathematical Science and Applications, Sarajevo, Bosnia And Herzegovina, 26 - 29

## Supported Projects

Sarı M., Koroğlu M. E., Project Supported by Higher Education Institutions, Sonlu Cisimler Üzerinde Çift Polinom Devirli Toplamsal Kodlar, 2023 - 2024

SARI M., KÖROĞLU M. E., Project Supported by Higher Education Institutions, Local Olmayan Değişmeli Halkaların Bir Sınıfı Üzerinde Aykırı-Devirli Kodlar, 2022 - 2022

## Peer Reviews in Scientific Publications

CRYPTOGRAPHY AND COMMUNICATIONS, Journal Indexed in SCI-E, March 2025

DESIGNS, CODES, AND CRYPTOGRAPHY, Journal Indexed in SCI-E, February 2025

ADVANCES IN MATHEMATICS OF COMMUNICATIONS, Journal Indexed in SCI-E, September 2024

Journal of Engineering Technology and Applied Sciences, National Scientific Refreed Journal, September 2024

DESIGNS, CODES, AND CRYPTOGRAPHY, Journal Indexed in SCI-E, September 2024

QUANTUM INFORMATION PROCESSING, Journal Indexed in SCI-E, July 2024

INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, Journal Indexed in SCI-E, February 2024

QUANTUM INFORMATION PROCESSING, Journal Indexed in SCI-E, January 2024

QUANTUM INFORMATION PROCESSING, Journal Indexed in SCI-E, June 2023

Journal of Mathematics, Journal Indexed in SCI-E, February 2023

INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, Journal Indexed in SCI-E, December 2022

QUANTUM INFORMATION PROCESSING, Journal Indexed in SCI-E, December 2022

COMPUTATIONAL AND APPLIED MATHEMATICS, Journal Indexed in SCI-E, March 2021

CRYPTOGRAPHY AND COMMUNICATIONS, Journal Indexed in SCI-E, March 2021

JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, Journal Indexed in SCI-E, March 2021

DISCRETE MATHEMATICS, Journal Indexed in SCI-E, February 2021

QUANTUM INFORMATION PROCESSING, Journal Indexed in SCI-E, May 2020

JOURNAL OF APPLIED MATHEMATICS AND COMPUTING, Journal Indexed in SCI-E, March 2020

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, Journal Indexed in ESCI, September 2019

## Metrics

Publication: 26

Citation (WoS): 60

Citation (Scopus): 85

H-Index (WoS): 5

H-Index (Scopus): 6

## Congress and Symposium Activities

Kriptoloji ve Cebirsel Kodlama Çalıştayı , Working Group, İstanbul, Turkey, 2015

International Workshop on Discrete Structures, Invited Speaker, Islamabad, Pakistan, 2013