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Personal Information

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Address: Yüzüncü Yıl Üniversitesi İİBF Binası Zemin Kat Matematik Bölümü

Education Information

Doctorate, Van Yüzüncü Yıl University, Fen Edebiyat Fakültesi, Matematik, Turkey 2014 - 2019

Postgraduate, Van Yüzüncü Yıl University, Fen Fakültesi, Matematik, Turkey 2012 - 2014

Undergraduate, Istanbul University, Fen Edebiyat Fakültesi, Matematik, Turkey 2008 - 2012

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Grup Halkalarında Nilpotent, İdempotent ve Birimsel Elemanlar, Van Yüzüncü Yıl University, Fen Fakültesi, Matematik, 2019

Postgraduate, Bazı Direkt Çarpım Gruplarının İntegral Grup Halkalarındaki Birimsellerin Belirlenmesi, Van Yüzüncü Yıl University, Fen Bilimleri Enstitüsü, Matematik, 2014

Research Areas

Computer Sciences, Information Security and Reliability, Cryptography, Mathematics, Field Theory and Polynomials, Commutative Rings and Algebras, Group Theory and Generalizations, Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Research Assistant PhD, Van Yüzüncü Yıl University, Fen Fakültesi, Matematik Bölümü, 2012 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

I. UNIT GROUP OF INTEGRAL GROUP RING $Z(G \times C_3)$

Küsmüş Ö.

Miskolc Mathematical Notes, vol.25, no.2, pp.829-838, 2024 (SCI-Expanded)

II. A CHARACTERIZATION OF THE UNIT GROUP IN $Z[T \times C-2]$

Bilgin T., Küsmüş Ö., Low R. M.

BULLETIN OF THE KOREAN MATHEMATICAL SOCIETY, vol.53, no.4, pp.1105-1112, 2016 (SCI-Expanded)

Articles Published in Other Journals

- I. **Trivial units in commutative group rings of $G \times C_n$**
Küsmüş Ö.
Algebra and Discrete Mathematics, vol.37, no.2, pp.262-274, 2024 (ESCI)
- II. **A Generalization of G-Nilpotent Units in Commutative Group Rings to Direct Product Groups**
Hanoymak T., KÜSMÜŞ Ö.
Yüzüncü Yıl Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.28, no.1, pp.8-18, 2023 (Peer-Reviewed Journal)
- III. **A glance at blockchain technology and cryptocurrencies as an application**
Hanoymak T., Küsmüş Ö.
Manas Journal of Engineering, vol.10, no.1, pp.60-65, 2022 (Peer-Reviewed Journal)
- IV. **A Novel Public-Key Encryption Scheme Based on Bass Cyclic Units in Integral Group Rings**
Küsmüş Ö., Hanoymak T.
Journal of Discrete Mathematical Sciences and Cryptography, vol.25, no.2, pp.579-589, 2020 (ESCI)
- V. **On Idempotent Units in Commutative Group Rings**
Küsmüş Ö.
Sakarya University Journal of Science, vol.0, pp.1, 2020 (Peer-Reviewed Journal)
- VI. **On Torsion Units of Integral Group Ring of A Dicyclic Group**
Küsmüş Ö.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.9, no.2, pp.609-614, 2020 (Peer-Reviewed Journal)
- VII. **On Torsion Units in Integral Group Ring of A Dicyclic Group**
Küsmüş Ö.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.9, no.2, pp.609-614, 2020 (Peer-Reviewed Journal)
- VIII. **Units in $Z(C_nXC_5)$**
Küsmüş Ö., Low R. M.
Palestine Journal of Mathematics, vol.9, no.1, pp.386-395, 2020 (Scopus)
- IX. **A Different Characterization of the Unit Group $U_1(Z(C_nxC_6))$**
Küsmüş Ö., Denizler İ. H., Görentaş N.
Journal of Algebra and Computational Applications, vol.9, no.1, pp.1-8, 2020 (Peer-Reviewed Journal)
- X. **A New Multi-Party Key Exchange Protocol and Symmetric Key Encryption Scheme over Non-commutative Group Rings**
Hanoymak T., Küsmüş Ö.
INTERNATIONAL JOURNAL OF INFORMATION SECURITY SCIENCE, vol.8, no.1, pp.11-16, 2019 (Peer-Reviewed Journal)
- XI. **On Construction of Cryptographic Systems over Units of Group Rings**
Küsmüş Ö., Hanoymak T.
International Electronic Journal of Pure and Applied Mathematics, no.9, pp.37-43, 2015 (Peer-Reviewed Journal)
- XII. **On the units of integral group ring of $C_n \times C_6$**
Küsmüş Ö.
ALGEBRA & DISCRETE MATHEMATICS, vol.20, no.1, pp.142-151, 2015 (ESCI)
- XIII. **Construction of Units in ZC_{24}**
Küsmüş Ö.
International Journal of Algebra, no.8, pp.471-477, 2014 (Peer-Reviewed Journal)
- XIV. **On Computing the Rank of $U(Z[C_n \times C_6])$**
Küsmüş Ö.
International Journal of Algebra, no.8, pp.365-374, 2014 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

- I. **A Note on Nilpotent Units in Commutative Group Rings of Direct Product Groups**

- Küsmüş Ö.
ICPAM-VAN 2022, Van, Turkey, 22 - 23 June 2022, pp.116-117
- II. **G-radical units in commutative group rings**
Küsmüş Ö.
ICPAM-VAN 2020, Van, Turkey, 3 - 05 September 2020, pp.83
- III. **A novel NTRU-like public key encryption scheme over group rings**
Hanoymak T., Küsmüş Ö.
ICPAM-VAN 2020, Van, Turkey, 3 - 05 September 2020, pp.74
- IV. **Idempotent Units in Integral Group Rings of Direct Products**
Küsmüş Ö., Denizler İ. H., Görentaş N.
2nd International Conference on Pure and Applied Mathematics 2018, Van, Turkey, 11 - 13 September 2018, vol.1, no.1, pp.101
- V. **Multi-party Key Exchange Protocol and Man in the Middle Attack**
Güleşçe Tatlı T., Hanoymak T., Küsmüş Ö.
2nd International Conference on Pure and Applied Mathematics 2018, Van, Turkey, 11 - 13 September 2018, vol.1, no.1, pp.79
- VI. **On Unit Group of Integral Group Ring $Z(S3XC3)$**
Küsmüş Ö.
New Trends in Rings and Modules I, Kocaeli, Turkey, 20 - 23 June 2018
- VII. **Trivial Units in Commutative Group Rings of Direct Products**
Küsmüş Ö.
Antalya Algebra Days XX, İzmir, Turkey, 16 - 20 May 2018, pp.33-34
- VIII. **A Possible Hashed-RSA Signature Scheme Using Units in Group Rings**
Hanoymak T., Küsmüş Ö.
Antalya Algebra Days XX, İzmir, Turkey, 16 - 20 May 2018, pp.30
- IX. **Multi-Party Key Exchange Protocol over Units of Group Rings**
Hanoymak T., Küsmüş Ö.
3rd International Conference on Computational Mathematics and Engineering Sciences 2018, Girne, Cyprus (Kkctc), 4 - 06 May 2018, pp.357
- X. **Construction of Units in $Z(CnXC5)$**
Küsmüş Ö.
Caucasian Mathematics Conference II, Van, Turkey, 22 August - 24 September 2017, vol.*, pp.100
- XI. **Another Description of Units in Integral Group Ring of Dicyclic Group of Order 12**
Küsmüş Ö.
International Conference on Pure and Applied Mathematics, Van, Turkey, 25 - 28 August 2015, pp.1
- XII. **A Possible Key Exchange Protocol over Group Rings**
Hanoymak T., Küsmüş Ö.
International Conference on Pure and Applied Mathematics, Van, Turkey, 25 - 28 August 2015, pp.1
- XIII. **The Group of Units in Integral Group Ring $Z[TxC2]$**
Küsmüş Ö.
Antalya Algebra Days, İzmir, Turkey, 20 - 24 May 2015, pp.31
- XIV. **On The Units in Integral Group Ring of A Kind of Metacyclic Group**
Küsmüş Ö., Bilgin T.
INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Viena, Austria, 16 - 19 August 2014, pp.65
- XV. **On Cryptographic Schemes over Group Rings**
Hanoymak T., Küsmüş Ö.
INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, Viena, Austria, 16 - 19 August 2014, pp.70

Peer Reviews in Scientific Publications

International journal of Theoretical Physics, SCI Journal, April 2019

Tasks In Event Organizations

Küsmüş Ö., ICPAM-VAN 2022, Scientific Congress, Van, Turkey, Haziran 2022

Küsmüş Ö., ICPAM-VAN 2020, Scientific Congress, Van, Turkey, Eylül 2020

Küsmüş Ö., ICPAM-VAN 2018, Scientific Congress, Van, Turkey, Eylül 2018

Küsmüş Ö., ICPAM 2015, Scientific Congress, Van, Turkey, Ağustos 2015

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Publication: 31