

ZEKERIYA Y. KARATAS, Ph. D., Assistant Professor, Mathematics
Publications and Presentations (2008-2017)

Books

1. C. Aji, J. Bales, Z. Y. Karatas and H. Talibi, Fundamentals of Algebra. Empire Science Resources LLC, 2014, ISBN 978-0-982749-2-7.
2. Z. Y. Karatas, Y. H. Kim, Y. Kim, B. Lee, A. M. Tameru and W. Yan, A Basic Approach to PreCalculus Algebra, Preparing to Succeed in Calculus. In progress.

Refereed Journal Publications

Papers Published/In Print

1. E. Luy, Z.Y. Karatas and H. Ergin, Comment on “An Enhanced and Secured RSA Key Generation Scheme (ESRKGS)”, J. Inf. Secur. Appl., published online on April 11, 2016, in press.
2. E. Aygun, E. Luy and Z.Y.Karatas, An Elementary Generalization on Modified Rivest Encryption, Al. J. Math. 39 (2015).
3. L. K. Tuominen, S. J. Whipple, B. C. Patten, Z. Y. Karatas and C. Kazanci, Contribution of Throughflows to the Ecological Interpretation of Integral Network Utility, Ecological Modelling 293 (2014), 187 -201.
4. M. R. Dixon and Y. Karatas, Groups with all subgroups permutable or soluble, Int. J. Group Theory 2 (2013), no. 1, 37 -43.
5. M. R. Dixon and Z. Y. Karatas, Groups with all subgroups permutable or of finite rank, Cent. Eur. J. Math. 10(3) (2012), 950 -957.

Papers under Review

1. Z.Y. Karatas, E. Aygun, E. Luy, H. Ergin and B. Gonen, Novel Cryptosystems Based on Two Different Mod Values, Cryptologia, under review.
2. Oteles and Z. Y. Karatas, Binomial Coefficients and Powers of One Type of Large Pentadiagonal Matrices, Appl. Comput. Math., under review.

Publications in International Conference Proceedings

1. Z. Y. Karatas, E. Aygün, E. Lüy, H. Ergin and B. Gönen, Novel Cryptosystems Based on Two Different Mod Values, International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, Turkey, 12-14 May 2016.
2. E. Lüy, Z. Y. Karatas and H. Ergin, Multy-Power RSA, International Conference on Mathematics and Mathematics Education (ICMME-2016), Fırat University, Elazığ, Turkey, 12-14 May 2016.

Presentations at National and International Conferences

1. Southern Regional Algebra Conference, March 18-20, 2016
Presentation: Groups whose non-permutable subgroups satisfy certain rank conditions
Auburn University, Auburn, AL
2. 66th Annual Meeting of the AACTM, February 13, 2016
(Alabama Association of College Teachers of Mathematics)
Presentation: A Novel Cryptosystem Based on Lower Triangular Matrices
Auburn University at Montgomery, Montgomery, AL
3. Southern Regional Algebra Conference, March 13-15, 2015
Presentation: Groups with all subgroups permutable or soluble
University of Louisiana at Lafayette, Lafayette, LA
4. 65th Annual Meeting of the AACTM, February 7, 2015
(Alabama Association of College Teachers of Mathematics)
Presentation: Groups whose non-permutable subgroups satisfy certain conditions
University of Alabama, Tuscaloosa, AL
5. Southern Regional Algebra Conference, April 25-27, 2014
Presentation: Groups with all subgroups permutable or of finite rank
Auburn University at Montgomery, Montgomery, AL

Seminar Lectures

1. Groups whose non-permutable subgroups satisfy certain conditions
Algebra Seminar, Auburn University Montgomery, November 19, 2015

2. Groups whose proper subgroups satisfy certain conditions, 2013
Algebra Seminar, Tuskegee University, 2013
3. Groups whose non-permutable subgroups satisfy certain conditions, 2012
Algebra Seminar, University of Georgia, 2012
4. Groups with all subgroups permutable or of finite rank, 2011
Algebra Seminar, University of Alabama, 2011

Workshops/Conferences Attended Without Presentation

1. STELAR – NSF Innovative Technology Experiences for Students and Teachers (ITEST)
Proposal Writing Workshop, June 9-10, 2015
Developing Strong NSF Proposals
Tuskegee University, Tuskegee, AL
2. Professional Development Intensive Workshop, ‘Embracing Changes as University Faculty:
What’s a professor to do?’, Faculty Center for Teaching and Learning, Tuskegee University,
Tuskegee, AL, March 24-25, 2014
3. 64th Annual Meeting of the AACTM, February 2014
(Alabama Association of College Teachers of Mathematics)
Auburn University, Auburn, AL
4. Professional Development Intensive workshop, “The Science of Learning: Its Utility in
Teaching and Learning” Faculty Center for Teaching & Learning, Tuskegee University,
Tuskegee, AL, January 31, 2014
5. Initial NSF Undergraduate STEM Education Program Proposal Writing Session, Faculty
Center for Teaching and Learning, Tuskegee University, Tuskegee, AL, November 20, 2013
6. Professional Development Intensive workshop, ‘Strategies that Promote Active Learning’
Faculty Center for Teaching & Learning, Tuskegee University, Tuskegee, AL, October 31-
November 01, 2013
7. Professional Development Intensive workshop, ‘Connecting the “Ivory Tower” to the Real
World’ Faculty Center for Teaching & Learning, Tuskegee University, Tuskegee, AL,
September 25-26, 2013

8. Plato Training, Tuskegee Center for Academic Excellence and Innovative Learning (T-CAEIL) Tuskegee University, Tuskegee, AL, September 19, 2013
9. Edmentum Services Virtual Professional Development Session, Tuskegee-Center for Academic Excellence and Innovative Learning (T-CAEIL) , Tuskegee University, Tuskegee, Alabama, August 28, 2013
10. Zassenhaus Group Theory Conference, May 2013
Western Carolina University, Asheville, NC