

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

### Books

1. C. Aji, J. Bales, Z. Y. Karatas and H. Talibi, Fundamentals of Algebra. Science Resources LLC, 2014, ISBN-978-1-274-2749-7.
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, R P P H Q W R Q † \$ Q ( Q K D Q F H G D Q G 6 \* H Q H U D W L R Q 6 F, K. Int. Secur. (Applied), 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 Networked Quality, Eco Modelling 293 (2014),-287.
4. M. R. Dixon and Y. Karatas, Groups with all subgroups permutable or soluble, Int. J. Group Theory 2 (2013), no. 1-437
5. M. R. Dixon and Z. Y. Karatas, Groups with all subgroups permutable or of finite rank, Cen Eur. J. Math. 10(3) (2012),9850

#### 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 Coefficient 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 Moduli, International Conference on Mathematics and Mathematics Education (ICMME) ÖÜ D W 8 Turkey, 12-14 May 2016
2. E. Lüy, Z. Y. Karatas and H. Ergin, Higher RSA, International Conference on Mathematics and Mathematics Education (ICMME) ÖÜ D W 8 Turkey, 12-14 May 2016.

### Presentations at National and International Conferences

1. Southern Regional Algebra Conference, March 20, 2016  
Presentation: Groups whose 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 15, 2015  
Presentation: Groups with all subgroups permutable or soluble  
University of Louisiana at Lafayette, Lafayette, L
4. 65th Annual Meeting of the AACTM, February 7, 2015  
(Alabama Association of College Teachers of Mathematics)  
Presentation: Groups whose permutable subgroups satisfy certain conditions  
University of Alabama, Tuscaloosa, AL
5. Southern Regional Algebra Conference, April 25, 2014  
Presentation: Groups with all subgroups permutable or of finite rank  
Auburn University at Montgomery, Montgomery, AL

### Seminar Lectures

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

2.

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