

CURRICULUM VITAE

Dr. Douglas Brozovic

Education

- The Ohio State University, Columbus Ohio, 1986-1991. Ph.D. in Mathematics, August 1991. Advisor: Professor Ronald Solomon.
- The Ohio State University, Columbus Ohio, 1984-1986. M.S. in Mathematics, June 1986.
- The Ohio State University, Columbus Ohio, 1980-1984. B.S. in Mathematics, August 1984.

Professional Experience

- Visiting Mathematician, National Security Agency, August 2006-August 2007.
- Associate Professor of Mathematics, University of North Texas, fall 1997-summer 2006, fall 2007 to present.
- Assistant Professor of Mathematics, University of North Texas, 1991-spring 1997.
- Graduate Teaching Assistant, The Ohio State University, 1984-1991.
- Undergraduate Teaching Assistant, The Ohio State University, September 1982-June 1984.

Areas of Mathematical Interest

Finite group theory, permutation groups, finite classical groups, finite groups of Lie type, finite projective planes, finite affine translation planes.

Publications and Manuscripts

- 'The Classification of finite sharp permutation groups of type $\{0,4\}'$, co-authored with S. Rogeyeh Adhami, to appear in *J. Algebra and its Applications*, 2023.
- 'A note on point stabilizers in sharp permutation groups of type $\{0,k\}'$, co-authored with Peter K. Sin, *Comm. Algebra* **44**(8) (2016), 3324-3339.
- 'The Classification of Primitive Sharp Permutation Groups of type $\{0,k\}'$ *Comm. Algebra* **42**(7) (2014), 3028-3062.
- 'Some Characterizations for Desarguesian Translation Planes by Orders of Subgroups in Translation Complements,' co-authored with Chat Yin Ho, *Journal of Algebra and its Applications*, **5**(1) 19-34 (2006).
- 'A Correction to "Incidence Matrices and Collineations of Finite Projective Planes, by Chat Yin Ho, *Designs, Codes and Cryptography*, **18**, (1999), 159-162,"' co-authored with Chat Yin Ho and Akihiro Munemasa, *Designs, Codes and Cryptography*, **25** (2002), 91-93.
- 'One point stabilizers in almost simple sharp permutation groups', *Comm. Algebra* **28** (4) (2000), 2103-2129.
- 'On groups of hyperbolic length,' *Israel Journal of Mathematics* **98** (1997), 61-99.
- 'On primitive sharp permutation groups,' *Comm. Algebra* **24** (12) (1996), 3979-3994.

- 'The Length of Chains in Odd Characteristic Lie Type Groups,' *J. Algebra* **170** (2) (1994), 440-469.
- 'Groups of Hyperbolic length in Odd Characteristic Groups of Lie Type', *J. Algebra* **164** (1) (1994), 210-243.
- 'A Reduction Theorem for the Chain Length of an Odd Characteristic Lie Type Group,' *J. Algebra* **163** (3) (1994), 739-756.
- 'Almost Simple p-obstructions in Odd Characteristic Lie Type Groups,' *Comm. Algebra* **22** (1994), 1219-1227.
- 'Subgroup Chains in Finite Groups,' pages 70-81 of *Group Theory: proceedings of the Biennial Ohio State-Denison Conference*, S. Sehgal and R. Solomon, editors, World Scientific Publishing Co. Pte. Ltd., 1993.
- 'A Survey on Chains of Subgroups,' co-authored with Ronald Solomon, pages 145-153 of *Coding Theory, Design Theory and Graph Theory: proceedings of the Marshall Hall Conference*, D. Jungnickel, S.A. Vanstone, editors. John Wiley & Sons, Inc., 1993.

Professional Presentations

- *An introduction to sharp permutation groups*, an invited talk given in the Algebra Seminar, University of Louisiana Lafayette, March 11, 2022.
- *An introduction to sharp permutation groups*, an invited lecture given at the 2020 Zassenhaus Groups and Friends conference, hosted by SUNY Binghamton, 5 June 2020.
- *An introduction to sharp permutation groups*, an invited lecture given at the 2019 China-US Group Theory Summit, Texas State University (San Marcos), 24 August 2019.
- *A Survey of Sharp Permutation Groups*, an invited lecture given in the Algebra Seminar, University of Florida, Gainesville, Florida, 3 October 2014.
- *Partitions in Finite Groups*, an invited lecture given at the National Security Agency, Ft. Meade, Maryland, 9 April 2007.
- *Classifying Primitive Sharp Permutation Groups of Small Rank*, an invited lecture given at the National Security Agency, Ft. Meade, Maryland, 17 February 2006.
- *Finite Groups, Finite Geometries and Involving Undergraduates in Research Like Experiences*, an invited lecture given at William Jewell College, Liberty Missouri, 30 Jan. 2006.
- *Translation Planes with Large Translation Complements*, an invited lecture given at the National Security Agency, Ft. Meade, Maryland, 16 April 2004.
- *Some Characterizations of Finite Desarguesian Translation Planes by Orders of Subgroups of Collineations*, an invited talk presented at the special session on "Groups, Representations and Characters," AMS Sectional Meeting #995 at the Ohio University, Athens, Ohio, 27 March 2004.
- *A Characterization of Translation Planes with Large Translation Complements*, an invited lecture presented at the Institute for Defense Analysis, Center for Communication Research, La Jolla, California, 6 Oct. 2003.
- *A Group Theorist's Introduction to Finite Translation Planes*, an invited Colloquium presented at the New College of the University of South Florida in Sarasota, 14 March 2003.
- *A Survey of Sharp Permutation Groups*, an invited Colloquium lecture given at the University of Bielefeld, Germany, 19 June 2000.
- *A Brief Survey of Sharp Permutation Groups*, contributed talk given at the Eighth International Conference on "Groups and Group Rings", Wisla, Poland, 9 June 2000.

- *A Survey of Sharp Permutation Groups*, invited seminar talk given at the Ohio State University, 21 May 1999.
- *Sharp Permutation Groups*, invited talk presented at the Zassenhaus Group Theory Conference, 10 Jan. 1997 in Sarasota, Florida, sponsored by New College of the University of South Florida.
- *Sharp Permutation Groups*, invited talk presented at the 904th AMS meeting at Kent, Ohio, 3 Nov. 1995.
- *Sharp Permutation Groups and the Uniform Base Property*, presentation to the Algebra Seminar at the Ohio State University, 14 May 1994.
- *Long Maximal Subgroups and Chain Length Bounds in Finite Groups*, invited talk presented at the Conference on Group Theory and Related Topics, Research Institute for Mathematical Sciences, University of Kyoto, Japan, 17 Dec. 1993.
- *Subgroup Chains in Finite Groups*, Colloquium given at University of Kyushu, Fukuoka, Japan, 22 Dec. 1993.
- *Subgroup Chains in Finite Groups; Prediction and Computation*, invited talk presented in the Algebra Seminar at the University of Florida, 9 Feb. 1993.
- *Long Maximal Subgroups of Linear Groups*, a joint paper presented by Professor Ronald M. Solomon at the Western Regional meeting of the AMS in Los Angeles, California, 8 Nov. 1992.
- *Subgroup chains in Finite Groups*, invited talk presented at the XXIst Ohio State University-Dension Conference on Combinatorics, Group Theory and Ring Theory, 15 May 1992.
- *Chains of Subgroups in Lie Type Groups*, Invited talk at the Southeast Regional AMS meeting in Tampa, Florida, special session on finite groups and related topics, March 1991.
- *Chains of Subgroups in Lie Type Groups*, contributed talk at the Joint AMS-MAA meeting in San Francisco, California, January 1991.

Manuscripts and Current Research Work

- 'On Sharp Permutation groups with prescribed one-point stabilizers', with Justin Lynd (ULL) and Blake Norman. In preparation.
- 'An Introduction to Finite Translation Planes', unpublished manuscript completed August 2003. Available upon request.
- 'A Note on Solvable Groups Admitting a Non-trivial Normal Partition,' co-authored with Ronald Solomon, unpublished manuscript completed January 2000. Manuscript available upon request. The abstract is as follows:

In this we consider finite solvable groups that admit a proper, non-trivial partition normal and describe in detail the possible structure of such groups.

Awards

Recipient of the 2003 President's Counsel Teaching Award. At the time, two such awards are given each year at the University of North Texas.

Recipient of the 2022 Math Department Teaching Award.