The 88th Annual Meeting of the Texas Section of the MAA

Student Contributed Paper Sessions

Time	**Session I** *Mathematics Education, Finances*	**Session II** *Biomathematics: Amphibian, Insects, Genetics*	**Session III** *Biomathematics: Human Disease/Virus, PDEs*	**Session IV** *Number Theory, Probability, Combinatorics*	**Session V** *Analysis: Numerical, Applied*	**Session VI** *Graph Theory, Geometry, Knot Theory*	**Session VII** *Statistics*	**Session VIII** *Algebra, History*
8:00 – 8:15	*The Effectiveness of Standardized Tests in Measuring College Readiness* Stacey Denum	*Stability and Persistence in Gender and Stage Structured Population Models for the Boreal Toad* D. Kumudu Mallawaarachchi	*The Fountain of Youth is in the Numbers* Allyson Winans	*Formulating an IP Model for Solving Sudoku Puzzles* Lauren A. Gracia	*Partial Differential Equations Revealed* Kasey Gammons Greg Webb	*The Mathematics of Phylogenetics* Matthew Kerns	*The Matching Problem* PJ Couch	*Fractals: A History* Katherine Bateman
8:20 – 8:35	*Problem Solving Approaches Among First-Semester Calculus Students with Particular Reference to Representation* Paul Dawkins	*A metapopulation model: Comparisons between deterministic and stochastic models* Amy Ekanayake	*Testing for Synergy in Combinations of Cancer Fighting Agents* Lindsay Brown	*Sudoku Puzzles and Cayley Tables of Small Order n* Xavier Manuel Renteria	*When Cones Collide: Volumes from Intersecting Cones* Jeff Davis		*Visualizating and characterizing Gaussian random field models (part 1 of 2)* Osbert Bastani	*How Leonhard Euler Solved the Knigsberg Bridge Problem* Stephanie Oakeley
8:40 – 8:55	*What Does "X" Mean?* Tom Horn	*Non Standard Discretization Methods for Systems of Differential Equations with Applications to Barred Tiger Salamanders* Emily E. Brucks	*Ballooning of America: A Mathematical Perspective* Toni Tullius	*Breaking Cryptosystems* Joshua Langford	*Those Eccentric Conics* Amanda Rains	*Total Domination in Connected Graphs* Alicia C. Corazn	*Visualizating and characterizing Gaussian random field models (part 2 of 2)* Di Wu	*Prime Faux Pas* Amanda Seitz
9:00 – 9:15	*Reading in Secondary Mathematics* Mary Cassaro	*A Discrete Time Spatially Structured Deterministic Model with Applications to Monogyne and Polygyne Type Red Imported Fire Ant Mounds* Joshua Jenkins	*A Model for West Nile Virus Transmission* Jennifer Compton	*Zeros of Two-Term Recursive Polynomials* Bo Gilbert	*Using Hansen Solubility Parameters to Model Solvent Blends* Justin Green	*"The Surfer Problem"* Katie Davenport	*The Truth is Not Enough to Set you Free* Brandon Morgan	*A Brief History of Srinivasa Ramanujan* Brittany Watkins
9:20 – 9:35	*Using Matlab and Mathematica in Teaching Multivariable Calculus* Shilpa Daram	*Continuous-time, stage-structured, multiple-species epidemic model with applications to amphibians* Kathleen Sims	*Models for the Spread and Persistence of Hantavirus Infection in Rodents and Indirect Transmission to Humans* Curtis L. Wesley	*The Existence of Infinity Though Transfinite Numbers* Krystal Woods	*Picture Perfect* Rebecca Bowyer	*So, A Parallelogram Walks into a Square...: Proofs of the Pythagorean Theorem and Perhaps a New One.* Mary Ann Ramirez	*Nonparametric Bootstrap Applications in Linear Regression* Sarah C. Evans	*Exploration of G-graphs of Non-Abelian Groups* Alys Rodriguez, Andrea DeWitt
9:40 – 9:55	*Re-Invent The Wheel: Can It Be Done?* Christa Bauer Jillian Hamilton	*Discrete-Time, Stage-Structured, Spatial Epidemic Model with Applications to Amphibians* James Oxford	*Radial Solutions to a Superlinear Dirichlet Problem* Sridevi Pudipeddi	*The Birthday Problem* Mr. Christopher Sams	*Analyzing Prosodic and Segmental Features of Different Varieties of English* Kimberly Morris	*Co-prime Labeling of Squared Cycles* Francisco M. Sanchez	*Application of Statistical Sampling Methods to Soil Phosphorous Data from North Central Texas Dairies* Bonnie Terry	*An Introduction to LC-quasigroups* Ashley Weatherwax
10:00 – 10:15	*Choosing an IRA: Taxes Now or Taxes Later* Eric Pleasant	*An Exploration into the Efficiency of Genetic Algorithms* Jonathan Sanders		*A Study of the Parameters of the Triangular Probability Distribution* Ms. Angela Eaglin	*Interpolation And Its Effects on Digital Sound* Lynn Blair	*Computing S-equivalence in Knots and Links* Caitlyn Phillips	*Comparisons of Robustness of the Tests for Equality of Variances* Kalanka Pradeep Jayalath	*Symmetry Groups from Crystal Structures* Christine Keith
10:20 – 10:35		*Genetic Algebra* Laura Stube	*Fourier Transforms and 4-D Tensor-Based Wave Equations* Douglas Moore	*Revealing the Mysteries of Pandiagonal Magic Squares* Adam Castilo	*Research and Background in Multigrid and its Applications to Poisson's Equation* Gilbert Ymbert, III	*Determining Colorability of Knots* Terrell Fenner	*The Probability Distribution of Winning in the Monty Hall Problem* Curtis White	*A Sociological Application of Group Theory* Matthew Wickes