

**Schedule of Student and Faculty Talks**  
**MAA Allegheny Mountain Section**  
**Spring 2003 Meeting**

**Smeal 151**

- 8:00-8:15     **Lee J. Steen**, Penn State Erie  
*Using Matlab and Geometric Shapes to use in Calculating Left Ventricle Stroke Efficiency from 3-D Sonometric Data and Aortic Flow Data*
- 8:20-8:35     **Eric J. Knox**, Penn State Erie  
*Calculations of Left Ventricle Volume from Sonometric Data and Filling Tetrahedrons*
- 8:40-8:55     **Chuck Burchard**, Penn State Erie  
*Russian Peasant Multiplication and an Efficient Algorithm for Integer Division*
- 9:00-9:15     **Richard Brazier**, Penn State DuBois  
*An Easy Recursive Formula for Computing the Partial Fraction Decomposition*
- 9:20-9:35     **John Lattanzio**, Indiana Univ. of Pennsylvania  
*Vertex Critical Graphs Containing No Critical Edge*
- 9:40-9:55     **Gregor Olsavsky**, Penn State Erie  
*Just a Little Lie*

**Smeal 149**

- 8:00-8:15     **Michael Piatek**, Duquesne University  
*Getting Knotty in Parallel*
- 8:20-8:35     **Amy C. Ulinski**, Duquesne University  
*Play the Guessing Game: What is That Boolean Function?*
- 8:40-8:55     **David E. Moore**, Edinboro University  
*Comparing Western and Vedic Methods for Partial Fraction Decomposition: A Western Proof of the Vedic Method*
- 9:00-9:15     **Amy Hensler**, West Liberty State College  
*Pascal's Triangle*
- 9:20-9:35     **Jessalyn Smith**, Westminster College  
*Gamma Knife Optimization*
- 9:40-9:55     **Brian Sullivan**, Westminster College  
*Investigating the Ising Model of a Ferromagnet*

## Smeal 148

- 8:00-8:15 **Joseph Worthington**, Slippery Rock University  
*Unusual Definitions of Distance*
- 8:20-8:35 **J. Lyn Miller**, Slippery Rock University  
*A Sampler of Activities for Use with Elementary Education Majors*
- 8:40-8:55 **Patrick Stephenson**, Penn State Erie  
*A Three-Species, Predator/Prey Food Cycle*
- 9:00-9:15 **Jennifer Mendes**, Penn State Erie  
*Restrictions on Difference Sets in Groups of Order 676*
- 9:20-9:35 **Andrew Sobotka**, Penn State Erie  
*Calculating Left Ventricle Stroke Efficiency from Aortic Flow and Ventricular Pressure Data*
- 9:40-9:55 **Amanda Hovis**, Penn State Erie  
*Can calculus techniques help to predict stock market fluctuations?*
- 10:00-10:15 **Fabrizio Polo**, Allegheny College  
*Application of Graph Theory to the Genoa Lottery Problem*

## Smeal 146

- 8:00-8:15 **Kevin Culp**, Westminster College  
*Strategy for NCAA College Football Overtime Games*
- 8:20-8:35 **Joshua Caplinger**, Westminster College  
*Activity Networks*
- 8:40-8:55 **Emily Deah**, Westminster College  
*Cutting Polyominoes*
- 9:00-9:15 **Sarah Plimpton**, Westminster College  
*Getting to the Core of Packing*
- 9:20-9:35 **Daniell Toth**, Juniata College  
*A Mathematics of Finance Course for the Liberal Arts College (with Example)*
- 9:40-9:55 **Joe Poullet**, Penn State Erie  
*Animating Solutions of ODEs*

## Smeal 147

- 8:00-8:15     **Jason Wable**, Indiana Univ. of Pennsylvania  
*The Singularity*
- 8:20-8:35     **Yu-Ju Kuo**, Indiana Univ. of Pennsylvania  
*Interior Point Methods and Second Order Cone Programming*
- 8:40-8:55     **Brian Hunter**, Allegheny College  
*The Busy Beaver Function and Noncomputability*
- 9:00-9:15     **Tom Everest**, Allegheny College  
*Primes of the Form  $2k+1$ ,  $4k+1$ , and  $2kp+1$  for Odd Primes  $p$*
- 9:20-9:35     **Charles Redmond**, Mercyhurst College  
*Circuit Tournaments, the Mean Value Theorem, and the NFL*
- 9:40-9:55     **Paul Becker**, Penn State Erie  
*Do Normal Subgroups Have Straight Tails?*
- 10:00-10:15   **John Thompson**, University of Pittsburgh at Johnstown  
*It's More Than a Game*

## Smeal 141

- 8:00-8:15     **Gerald Kruse**, Juniata College  
*Teaching Discrete Structures to First Semester Computer Science and Information Technology Majors*
- 8:20-8:35     **James Sellers**, Penn State University  
*Two Families of Plane Partitions: TSSCPPs and CSTCPPs*
- 8:40-8:55     **Barbara Power**, Penn State Erie  
*Calculus I Student Project: An Exploration of Indeterminate Limits and L'Hopital's Rule*
- 9:00-9:15     **Kim Roth**, Wheeling Jesuit University  
*Testing Definitions – The Beginning of an Exploration*
- 9:20-9:35     **Javier Gomez-Calderon**, Penn State University  
*Products of Dickson Polynomials*
- 9:40-9:55     **Patrick Headley**, Gannon University  
*Tableaux and Freudenthal's Formula*