SPEAKERS BUREAU

George Andrews

Number Theory

The theory of partitions
Combinatorics
Ramanujan

Talk Titles: 1. *The Story of Ramanujan and His Mathematical Surprises*
2. *Partitions: From Leibniz to Liquid Helium*
3. *The Death of Proof? Semi-Rigorous Mathematics? You've Got To Be Kidding!*

814-865-6642 (office)
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Pi-Mu-Epsilon J.S. Frame Lecturer, 1993

Andrew Belmonte

Fluid Dynamics & Appl. Mathematics

Viscoelastic fluids
Mechanics of flexible solids
Vortex dynamics

Talk Titles

1. *The Snap and Wiggle of Elastic Fluids*
2. *Motion of a Shaken Hanging Chain: Why Knot?*
3. *The Mathematics of Falling Paper*

814-865-2491 (office)
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Dmitri Burago

Geometry, Dynamics, Algorithmics

Geometry of periodic metrics
Large-scale geometry
Spaces of bounded curvature
Finsler geometry
Geodesic flows
Entropy-type characteristics
Algorithmic complexity

Talk Titles: *1. Asymptotic geometry of periodic media, and 2. Hard ball gas models and spaces of bounded curvature*

814-865-7741 (office)
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Mark Levi

Dynamical Systems & Appl. Mathematics

Applications of geometry to mechanics
Deterministic chaos
Differential equations

Talk Titles: 1. *Electromagnetic levitation, gyroscopes and other wonders*. (Physical demonstrations, mathematical explanations, and more demonstrations).
2. Theorems: discovery and proof by physics.
3. *The "Indian rope trick": why vibration can stabilize an upside-down pendulum.*

814-865-3661 (office)
814-235-0931 (home)
Email: levi@math.psu.edu

SPEAKERS BUREAU

Gary L. Mullen

Number Theory & Combinatorics

Finite Fields

Talk Title: *A Candidate for the Next Fermat Problem*

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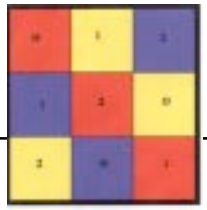

John Roe

Geometric Analysis

Topology, Geometry, Operator Algebras, Partial Differential Equations

Talk Titles:

1. *Are Infinitely Many Dimensions Enough?*
2. *From Topography to Topology via Quantum Mechanics*
3. *Mathematics of Rock Climbing*
4. *The fourth dimension*

814-865-9465 (office)

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Yakov Pesin

Dynamical Systems & Math. Physics

Hyperbolicity Theory

Riemannian Geometry

Fractal Geometry

Partial Differential Equations

Talk Titles:

1. *Fractals in Nature and Science*
2. *Deterministic and Random Phenomena in Physics and Mathematics*

814-865-00121 (office)

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Stephen Simpson

Logic

Reverse Mathematics

Degrees of Unsolvability

Talk Title:

Unprovable Theorems and Fast-Growing Functions

814-863-0775 (office)

Email: simpson@math.psu.edu

SPEAKERS BUREAU

Sergei Tabachnikov

Differential Topology

Symplectic Geometry
Low Dimensional Topology
Dynamical Systems
Differential Geometry

Talk Titles: 1. *Distribution of First Digits in Sequences*
2. *Geometry of Polynomials*
3. *Equiareal Triangulations*
4. *A Tale of a Geometric Inequality*
5. *Conway's Tiling Groups*
6. *Fourth Hilbert Problem*
7. *Developable Moebius Bands*
8. *Knots and Knot Invariants*

814 -865-6485 (office)
Email: tabachni@math.psu.edu

James Sellers

Number Theory & Combinatorics

The theory of Partitions
Enumerative Combinatorics

Talk Titles: 1. *Hunting for Partition Congruences (in the spirit of Ramanujan)*
2. *Triangles: Geometric and Square*
3. *Alternating Sign Matrices and Divisibility Properties*
4. *Congruences Relating Two Families of Plane Partitions*
5. *Arithmetic Properties of Basis Partitions with Specified Durfee Square Size*
6. *How Many Odd, Nonunitary Abundant Numbers Are There?*
7. *Combining Number Theory and Graph Theory: Enumerating Graphical Forest Partitions*

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"I thoroughly enjoy giving talks to undergraduate students!"