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)
814-364-9982(home)
Email: andrews@math.psu.edu
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)
814-863-0516 (lab)
Email: belmonte@math.psu.edu

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)
814-237-9618 (home)
Email: burago@math.psu.edu

Mark Levi

Dynamical Systems & Appl. Mathematics
Applications of geometry to mechanics
Deterministic chaos
Differential equations

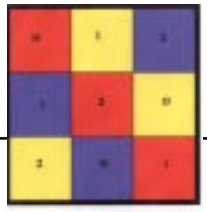
Talk Titles: 1. *Electromagnetic levitation, gyroscopes and other wonders.* (Physical demonstrations, mathematical explanations, and more demonstrations).
2. Theorems: discovery and proof by physics.
3. *The "Indian rope trick": why vibration can stabilize an upside-down pendulum.*

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*
814-865-7527 (office)
Email: mullen@math.psu.edu



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)
Email: roe@math.psu.edu

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)
Email: pesin@math.psu.edu

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*

814-865-7528 (office)
Email: sellersj@math.psu.edu
"I thoroughly enjoy giving talks to undergraduate students!"

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 201 Willard Building, University Park, PA 16802-2801; Tel 814-865-4700/V, 814-863-1150/TTY.

PENN STATE
Making Life Better

U.Ed. SCI 03-31