#### JOINT MEETING OF THE IOWA SECTIONS OF MAA, ASA, SIAM

## Iowa State University, Ames, Iowa April 22-23, 1983

#### Friday, April 22

#### Room 408 Carver Hall

- 1:30 Registration
- 2:00 Nikos Salingaros, University of Iowa, Applications of Clifford Algebras in Theoretical Physics
- Michael H. Millar, University of Northern Iowa, Automata: A View from Four Perspectives
- 3:00 Break

Concurrent Sessions

#### Room 408 Carver Hall - Student Papers

- 3:15 Donald John Nicholson, Iowa State University, A Ubiquitous Partition on Perfect Subsets of  $\mathbb{R}^n$
- 3:45 Todd Wibben and Jimmie Arnold, Iowa Wesleyan College, The Apple Looks at Bertrand's Paradox
- Grant Izmirlian, Drake University, Factoring the Characteristic Polynomial for Graphs with Symmetry
- Doug Jaynes and Bob Anderson, Iowa Wesleyan College. Cardano's Method of Solving Cubics in Finite Fields

#### Room 290 Carver Hall

- 3:15 Tom Whaley, Central College, A Geometric Limit Problem in Calculus
- George Kelley, Maharishi International University, Hyperspace - Exploring the Concept of Dimension
- 4:15 George Kelley, Corey Vion and Vedder Wright, Maharishi International Univ., A Fuller Value of Geometry
- George Kelley and Thomas Stone, Maharishi International University, The Musical Experience of Number

# Saturday, April 23

## Room 101 Carver Hall - Main Floor Auditorium

- 8:00 Coffee and Donuts
- 9:00 Paul Blanchard, Dynamics on the Riemann Sphere
- 10:00 Leonard Gillman, University of Texas, Treasurer of the MAA Classroom Notes
- 11:00 Break
- 11:15 Governor's Report
- 11:30 Business Meeting
- 12:00 1:30 Lunch
- 1:30 Wayne L. Woodworth, Drake University On Characterization of Isospectral Graphs

Concurrent Sessions

#### Room 101 Carver Hall - Main Floor Auditorium

- 2:00 Leslie Hogben, Iowa State University, A Matrix Calculator for Classroom Use
- 2:30 Paul Sacks, Iowa State University
  The Set of Solutions of a Semi-linear Parabolic Equation
- 3:00 W. Madych, Iowa State University,
  Practical and Mathematical Aspects of Computed Tomography
- 3:30 Jim Murdock, Iowa State University,
  Frequency Entrainment in Periodically Forced Oscillators

# Room 001 Carver Hall - Ground Floor Auditorium

- 2:00 Milan Randic, Drake University, On Deriving the Characteristic Polynomial of a Graph
- 2:30 Catherine Gorini Wadsworth, Maharishi International University,
  Using an Understanding of Consciousness to Explain the Effectiveness of
  Mathematics in the Sciences
- 3:00 Stephen J. Willson, Iowa State University,
  The Geometry of Coefficients of Powers of Polynomials
- 3:30 Eric W. Hart, Maharishi International University
  A Refined Platonist Philosophy of Mathematics