Iowa Section

Joint Meetings of the Iowa Sections of MAA, ASA and AMATYC were held at Iowa State University, Ames, on April 6-7, 1990. Program Chair: Elgin Johnston, ISU.

INVITED PRESENTATIONS:
Alan Tucker, SUNY-Stony Brook, CUPM RECOMMENDATIONS FOR THE MATH MAJOR REVISITED
Alan Tucker, SUNY-Stony Brook, MATHEMATICS OF FAIR REPRESENTATION
Krishna Athreya, Iowa State U., THE MATHEMATICS OF BOOTSTRAP

STUDENT PAPERS:
David Benz, Drake, ON THE SPECTRAL RANGE OF GRAPHS
Mark W. Coffey, ISU, PAINLEVÉ ANALYSIS OF A KDV-LIKE EQUATION WITH FIFTH DEGREE NONLINEARITY
Michael Deierling, Drake, CONSTRUCTION OF GRAPHS OF HIGH ORDER OF HIGHLY SYMMETRICAL GRAPHS
Jonathan Kessel, Drake, CONSTRUCTION OF HIGHLY SYMMETRICAL GRAPHS
Rachel Lamp, ISU, A PRINCIPAL IDEAL DOMAIN RING THAT IS NOT A EUCLIDEAN DOMAIN
Mark Lewis, ISU, STRATEGY DECISION MAKING IN PUZZLE PEG USING LINEAR PROGRAMMING
David A. Overbeek, Drake, FACTORING LARGE TRES
Robert Parker, ISU, ADJUSTING THE CENSUS
Stephen Rathbun, ISU, A SPACE-TIME SURVIVAL POINT PROCESS FOR A LONGLEAF PINE FOREST
Paul Shimura, MIU, TESSELLATION OF NON-ORIENTABLE SURFACES
Robin Taylor, Drake, BINARY CODES FOR A CYCLIC GRAPH
David Wilbur, Drake, HAMILTONIAN PATHS AND CYCLES IN TRIVALENT GRAPHS
Veronique Ziegler, MIU, INTEGRATING ALGEBRA AND TOPOLOGY: THE ZARISKI TOPOLOGY

CONTRIBUTED PAPERS:
Bernadette Baker, Drake, ISO-SPECTRAL GRAPHS AND ASSOCIATED ISO-SPECTRAL MULTIGRAPHS
Luz M. DeAlba, Drake, APPLICATIONS OF INDEFINITE SCALAR PRODUCTS TO SEVERAL MATRIX THEORY IDEAS
A. M. Fink, ISU and J. A. Gatica, Iowa, FOR EVERY ANSWER THERE ARE TWO QUESTIONS
A. M. Fink, ISU, J. A. Gatica, Iowa, G. E. Hernandez, Iowa, and P. Waltman, ISU, RADIAL SYMMETRIC SOLUTIONS OF SOME ELLIPTIC BOUNDARY VALUE PROBLEMS
Catherine Gorini, MIU, A MATHEMATICS CORE COURSE
Eric W. Hart, MIU, THE ROLE OF DISCRETE MATHEMATICS IN IMPROVING COLLEGIATE MATHEMATICS EDUCATION - THE BUBBLE HAS NOT BURST
Irvin Hentzel, ISU, THE EALLECIPHERS: ANY GOOD IDEAS?
Kenneth A. Heimes, ISU, POLYNOMIAL SOLUTIONS TO LINEAR PDE'S
K. Shantha Jayawardena, ISU, AN $O(n^2)$ ALGORITHM FOR COMPUTING THE INVERSE OF A POSITIVE DEFINITE TOEPLITZ MATRIX
Pranava K. Jha, ISU, CONVEX EXPANSIONS ALGORITHMS FOR RECOGNITION AND ISOMETRIC EMBEDDING OF MEDIAN GRAPHS
Kirk E. Jones, ISU, THE FABER TRANSFORMATION AND PRESERVATION OF LIPSCHITZ CLASSES
Jack H. Lutz, ISU, BOOLEAN CIRCUITS AND BANACH-MAZURGAMES
Michael Millar, UNI, CURVES FROM ANCIENT TIMES
Steve Nimmo and Doug Swan, Morningside, COMPUTER LAB PROJECTS FOR DERIVE
J. D. Phillips, ISU, TOPICS IN QUASI GROUP REPRESENTATION THEORY
Milan Randic and Alexander Kleiner, Drake, GRAPH POLYNOMIALS
Ronald K. Smith, Graceland, HYPERCARD IN THE MATHEMATICS CLASSROOM
Anita E. Solow, Grinnell, CALCULUS REFORM IN LIBERAL ARTS COLLEGES: PROGRESS REPORT
Tan Cao Tran, Loras, A NOTE ON THE RUSSELL PARADOX
Stephen J. Willson, ISU, INDUCED MAPS ON THE SYMBOLIC DYNAMICS OF CHAOTIC SPACES: AN EXAMPLE

OTHER SESSIONS: Mathematica (Informal Discussion)
BUSINESS:
Presiding: Calvin Van Niewaal, Section Chair
Attendance: 118
Student paper awards were announced: Michael Deierling, Jonathan Kessel, Paul Shimura, and Robin Taylor.
Reports were presented by Secretary-treasurer David Oakland and Governor Anne Steiner.
Elections: Chair-elect: Alex Kleiner (Drake); Secretary-treasurer: David Oakland (Drake).
Appointments: Section coordinator of student chapters: Catherine Gorini, (MIU). Meritorious Service Award Nominating committee: Alex Kleiner (Drake), George Trytten (Luther), Elgin Johnston (ISU).
1991 will be the 75th anniversary of the Iowa Section.

David O. Oakland, Secretary-treasurer.