IOWA SECTION

of the

Mathematical Association of America

PROGRAM OF

VISITING LECTURERS

1972-73

At the Iowa Section meeting in April, the members in attendance decided to initiate a visiting lecturer program within our Section. A survey in May indicated there were lecturers available with a variety of lecture topics. Also a significant number of the colleges indicated interest in having one or more visitors during the year.

The cost of the program is borne by:
1) Postage, paper, and reproduction of copy from regular funds of the Section.

2) Expenses of the lecturers by the host institution as their budget permits. Expenses are defined to be; mileage at the rate of 10¢ a mile, out of the pocket expenses for meals and/or lodging while away from home.

3) In case the expense of the lecturer is more than the host institution can pay, the difference is paid from a $100 grant from the Mathematical Association of America to the Iowa Section for this purpose.

Each institution which wishes to have a visiting lecturer from the following list should contact the lecturer directly and make all arrangements by mutual agreement. Schools without funds or with insufficient funds to pay expenses should not hesitate to invite lecturers, although discretion must be used for, as noted above, only $100 is available for this purpose.

Each lecturer has indicated the Level of his lecture according to the following definition:

Level I- Designed for Junior-Senior Mathematics Majors and Staff

Level II- Designed to further interest of the Freshman-Sophomore student in Mathematics.

Also the lecturer was invited to indicate the day or days of the week (DOW) preferred and the maximum one-way mileage (MOWM), if any for a visit.

Just a reminder to all concerned. The lecturers have volunteered their services, expecting to be reimbursed only for expenses. Your Executive Committee hopes that through this program we in mathematics will become better acquainted personally and more knowledgable of each others programs. We have attempted to give each one desiring to do so the opportunity to supply us his name and topics of lectures. The following is the list of lecturers and lecture titles as of October 5.

Questions or comments should be directed to one of your Executive Committee:

Joseph Hoffert, Chairman
Iowa Section
Drake University
Des Moines, Iowa 50311

Donald Bailey, Chairman-Elect
Iowa Section
Cornell College
Mt. Vernon, Iowa 52314

Basil E. Gillam, Secretary-Treasurer
Iowa Section
Drake University
Des Moines, Iowa 50311

INFORMATION ABOUT LECTURERS

Note: (DOW) indicates "preferred day of week"
        (MOWM) indicates "maximum one way
        mileage"

Alexander Abian   Dept. of Mathematics
                          400 Carver Hall
                          Iowa State University
                          Ames, Iowa   50010

   Foundations of Mathematics   (I)

   Axiomatic Set - Theory   (I)

   Boolean Rings   (I)

(DOW) - any day

Arnold Adelberg   Grinnell College
                          Grinnell, Iowa   50112

   Binomial Coefficients and the Calculus of
       Finite Differences   (I or II)

   The Intersection of Algebraic Curves in
       the Plane   (I)

   Bezout's Theorem for Hypersurfaces in
       n-space   (I)

(DOW) - T or Th   (MOWM) - 75

Donald F. Bailey   Cornell College
                          Mt. Vernon, Iowa   52314

   Iteration Techniques For Locating Fixed
       Points of Continuous Functions   (II)

   Fixed Points of Contraction Mappings   (I)

(DOW) - Thursday   (MOWM) - 50

James Broffitt   Dept. of Statistics
                          University of Iowa
                          Iowa City, Iowa 52240

   Statistics: A Guide to the Unknown (II)

   Probability and the Birthday Problem (I or II)

(DOW) - Th (best) or F   (MOWM) - 125

Bryan E. Cain   Department of Mathematics
                          Iowa State University
                          Ames, Iowa 50010

   Four Color Problem (I or II)

   Number Theory (I or II)

(DOW) - any

James L. Cornette   Department of Mathematics
                          Iowa State University
                          Ames, Iowa 50010

   Elementary Problems in Biomathematics (II)

   An Introduction to Game Theory (II)

   An Introduction to Mathematics Genetics (I)

(DOW) - Any

Rajbir Dahiya   470 Carver Hall
                          Iowa State University
                          Ames, Iowa 50010

   Multidimensional Laplace Transformation (I)

(DOW) - T or Th afternoon   (MOWM) - 100

Charles Jepsen   Grinnell College
                              Grinnell, Iowa 50112

 Dissecting a Circle   (I or II)

 Vector Spaces and Free Modules-
  Comparisons and Contrasts   (I)

 Finding the Shortest Path   (II)

(DOW) - T. or Th.   (MOWM) - 90-100

Stephen Jones   Westmar College
                             LeMars, Iowa 51031

 Math is to Society as Math is to Science (II)

Roy F. Keller   228 C. S. Bldg.
                             Iowa State University
                             Ames, Iowa 50010

 Solving Algebraic Systems of Equations (I)

 Iterative Processes   (I or II)

 How to Talk to a Computer and Make it
  Understand   (II)

(DOW) - T. or Th.   (MOWM) - 100-125

Alex Kleiner   Mathematics Department
                             Drake University
                             Des Moines, Iowa 50311

 Infinite Series   (II+)

 Ordered Fields and the Real Numbers   (I)

 Divergent Series and Matrix
  Summability   (I)

Robert J. Lambert   400 Carver Hall
                             Iowa State University
                             Ames, Iowa 50010

 Multi-Step Methods for Solving O.D.E.'s (I)

 Matrix Eigenvalue Problem   (I)

(DOW) - T. or Th.
  (Others arranged)

Charles Lindsay   Coe College
                             Cedar Rapids, Iowa 52402

 Order and Chaos - A Look at Mathematics
  Being Applied   (I or II)

 Some Comments on the Historical
  Development of Mathematics   (II)

(DOW) - T. or Th.

David W. McLaughlin   Iowa State University
                           Ames, Iowa 50010

 Concepts of Time and Symmetry   (I or II)

 An Integral over Function Space   (I)

 Random and Nonlinear Waves   (I)

Lavern Meyer   Westmar College
                             LeMars, Iowa 51031

 Non-Euclidean Geometry   (I or II)

 Geometric Transformations   (I or II)

 Numeration Systems   (II)

(DOW) - M.,W.,F.   (MOWM) - 125

Kenneth A. Heimes   442 Carver Hall
Iowa State University
Ames, Iowa 50010

The Stefan Problem (Glacial Melting) (I)

(DOW) - T or Th

Irvin R. Hentzel   400 Carver Hall
Iowa State University
Ames, Iowa 50010

Computer Assisted Strategy for Monopoly (II)

Applications of Modern Algebra to a Deck
     of Cards (II)

(-1.1) Rings, Their Structure and Properties
                               (I)

(DOW) - T or Th (fall quarter) (MOWM) - 75

Stanley Higgins   Mathematics Department
Drake University
Des Moines, Iowa 50311

The Four Color Problem (II)

(DOW) - Th. or F.

R. V. Hogg   Department of Statistics
University of Iowa
Iowa City, Iowa 52240

The Error Structure of Statistics (II)

A Problem in Maximum Likelihood
     Estimation (I)

(DOW) - T.(but others could   (MOWM) - 150
        be arranged)

Melvin Novick   Department of Statistics
University of Iowa
Iowa City, Iowa 52240
          or
American College Testing
Iowa City, Iowa 52240

Computer Assisted Data Analysis (I)

He will go almost anywhere in the state and
will bring a computer terminal with him.
He needs a phone so that he can connect back
to our computer (American College Testing will
pay the phone bill). This is an interesting
experiment and Mel will probably bring one
member of his staff to help out. Incidentally,
Novick has a joint appointment with Statistics,
Education (Ed. Measurement and Statistics),
and American College Testing.

Mrs. Ellen Oliver   Westmar College
LeMars, Iowa 51031

How to Make Sense Out of Statistics (II)

A Strange World: Some Wierd and Interesting
     Ideas from Topology (II or I)

Recreational Mathematics (II)

(DOW) - M,T,W,Th

John Ramberg   Dept. of Statistics
University of Iowa
Iowa City, Iowa 52240

Generating Random Variables on a Digital
     Computer (I)

(DOW) - T. or Th.   (MOWM) - 125

R. H. Randles   Department of Statistics

University of Iowa

Iowa City, Iowa 52240

Surveying Sensitive Issues through
Randomized Responses   (II)

Statistics, Scientific Method and Smoking   (I)

(MOWM) - 125

T. J. Robertson   Department of Statistics

University of Iowa

Iowa City, Iowa 52240

Measuring the Middle   (II)

Estimating a Step Function   (I)

Estimating Related Distributions   (I)

(MOWM) - reasonable

Donald E. Sanderson   Iowa State University

Ames, Iowa 50010

Teaching as an Aid to Research   (I)

The Jordan Curve Theorem - A 100 Year
History   (I)

(DOW) - T. or Th. (Fall 72)   (MOWM) - 150

Richard H. Spraque   Department of Mathematics

Iowa State University

Ames, Iowa 50010

Interesting Two-byTwo Matrices   (I)

Patterns in Arithmetic   (II)

(DOW) - T. or Th.   (MOWM) - 100
(preferably Th.)
(afternoons only)

Dennis Steele   Graceland College

Lamoni, Iowa 50140

Chebychev Techniques for Ordinary
Differential Equations   (I)

Solution of the Chebychev Equation Using
Residue Theory   (I)

The Influence of the Theorem of Pythagoras
on Philosophy   (II)

(DOW) - T. or Th.

George O. Strawn   Department of Mathematics

Iowa State University

Ames, Iowa 50010

The Mathematics of Computer Science   (I or II)

Approaching the Foundations of Mathematics
Constructively   (I)

Recursive Function Theory and Computability
Theory   (I)

(DOW) - prefer T. or Th.

Richard J. Tondra   Department of Mathematics

Iowa State University

Ames, Iowa 50010

Vector Fields on Spheres   (I)

(DOW) - T. or Th.

F. T. Wright   Department of Statistics

University of Iowa

Iowa City, Iowa 52240

Estimating Population Sizes from Recapture
Date   (II)

Oscillations of Sums of Random Variables   (I)

Isotonic Optimization   (I)

(DOW) - Tuesday   (MOWM) - 125

Robert S. Jacobsen   Luther College

Decorah, Iowa 52101

Some Applications of Statistics to
     Teaching   (I)

Multiple Regression Applications   (II)

(DOW) - Wednesday   (MOWM) - 100

Donald H. Pilgrim   Luther College

Decorah, Iowa 52101

On the Importance of Uniqueness of
     Prime Factorization   (II)

Some Elementary Mathematical Models in the
     Social Sciences   (II)

Some Principles of Problem Solving, with
     Illustrations   (II)

(DOW) - T. or W.   (MOWM) - 300