

# **IOWA SECTION MAA** NEWSLETTER

Vol.II No. 1 Edited by Donald V. Meyer November 1985

# JOINT SPRING MEETINGS

The annual joint meetings of the Iowa Section of MAA, SIAM and ASA will be held April 11-12, 1986, at the University of Iowa in Iowa City. An invited talk will be given by Lynn Steen, President of the MAA.

To help make the program have broad appeal, the Program Committee welcomes suggestions of topics for invited talks, panel discussions, workshops, or other events you feel would be of special interest. Send your suggestions to our Presidentelect, Anne K. Steiner, Department of Mathematics, Iowa State University, Ames, IA 50011.

We hope to again have an excellent selection of student papers at the meetings. Now is the time to get your better students started on a problem or project they can present. We anticipate being able to award free student memberships in MAA to each undergraduate student presenting a paper.

A call for papers will go out in early January. Begin thinking now about a choice item you would like to submit.

> Alan Heckenbach, Secretary, Iowa Section

#### GILLIAM IS MERITORIOUS SERVICE NOMINEE

At the April, 1985 meeting of the Iowa Section, Professor Basil Gilliam, retired Professor of Mathematics at Drake University, was nominated to receive a certificate for Meritorious Service for the service he has given to the Iowa Section in the past years. Normally, your governor would present this nomination at the annual January 1986 meeting and the award would be presented at the following summer meeting. Because of the ICM there are no joint AMS/MAA summer meetings in 1986. Thus the Board is shifting each event by half a year.

Our nomination will be made to the Board in August, 1986. With the Board's approval, the public presentation of the certificate will be made at the January 1987 meeting in San Antonio. We expect the nomination will be approved.

Congratulations, Basil! The award shall become official in due time.

#### CANDIDATES FOR OFFICE

The following individuals have been appointed to serve on the nominating committee: Arnold Adelberg, John Friedell, and Edward Hill (chairman). Nominees must be submitted at the spring meeting for the offices of Chairperson-Elect and Iowa Section Governor. If there are those who wish to submit a candidate, either themselves or someone else, please let a committee member know.

On behalf of the Iowa Section of the MAA, I want to publicly thank these men for their willingness to serve.

George Trytten
President, Iowa Section

# FUTURE MEETING SCHEDULE

January 9-11, 1986	MAA 69th Annual Meeting New Orleans, Louisiana
April 11,12, 1986	Iowa Section MAA Spring Meeting University of Iowa Iowa City, Iowa
August 3-11, 1986	International Congress of Mathematics University of California Berkeley, Calif.
January 23-25, 1987	MAA 70th Annual Meeting

January 23-25, 1987 MAA 70th Annual Meeting San Antonio, Texas Those of you who will be attending the Annual Meeting of the MAA in New Orleans in January will vote on a number of proposed amendments to the By-Laws. These proposed amendments were discussed by the Governors at the 1985 Summer Meeting, are recommended for approval, and are all quite routine with one exception. The exception is the proposed change in Article IV, Section 2 (Procedures for General Elections).

At present a Nominating Committee, appointed by the President, submits a list of at least five candidates for President-Elect and at least three candidates for each other office to the membership of the MAA on a primary ballot. Committee then selects one candidate from among the three candidates receiving the most votes for President-Elect and two candidates, one being the person receiving the most votes, for all other offices to be voted upon by the membership on a final In reality, the Committee selects the President-Elect. In the proposed amendment, there will be only one vote by the membership. Each voting member may vote for as many candidates as she or he wishes for each office. Then for each office, the Nominating Committee shall declare elected the person having received the most votes and having been determined by the Committee to be willing and able to serve. While this method of voting, called approval voting, was discussed at length by the Governors and has both advantages and disadvantages, it at least provides for a more democratic method of electing the President-Elect than the method used at present.

> Donald V. Meyer Governor, Iowa Section

#### TEACHING EXPERIENTIAL APPLIED MATHEMATICS

The Mathematical Association of America is producing an applied mathematics curriculum package for 2-year college, 4-year college, and university students. Many of you are already aware of this program and Drake University, Central College, Luther College and University of Iowa have ordered the first year materials. The second year of TEAM production is now complete and the materials are available to you free of charge. The new modules are: Satellite Communications Subsystem, Loan Insurance Analysis, and The Statue of Liberty. The modules from last year are still available and include: Hours of Daylight, Highway Slope Design, and Aircraft Sidestep Maneuver.

Each learning module consists of a video cassette which introduces the problem in raw form, a resource book, a microcomputer software package on a diskette, and a second video cassette which presents the industrial solution to the problem. Each nodule will present students with learning materials and instructors with a strategy for an experiential approach. If you are interested in receiving these materials, return the attached order form to Tom Iverson at Central College, who is the Iowa Section Leader for the project.

# TEAM ORDER FORM

Name:			
Address:			
City:	State:	Ziŗ	)
Phone (Area Code + Number):			
Video Cassette (1/2" VHS)			
To order another 1/2" VHS TEAM Vicassette desired. You may list the preference: 1 for first, 2 for se	ne video tap	e, check the bes in order	e of
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The supply of TEAM Resource Books have a complete set of TEAM Resou additional sets. To obtain copie ask that you copy them at your ow	rce Books, p s of the TE	please do n	ot order
Should we send a set of Year 1 TE Should we send a set of Year 2 TE	AM Resource AM Resource	Books?	YesNo
Return the completed re-order for	m to:		
Thomas Tyerson			

Thomas Iverson Central College Pella, Iowa 50219 The Visiting Lecturer Program is being repeated in the same format as last year. Last year we had more lecturers than demand; close estimates indicate that about four lectures were given under this program. The list of talks looks interesting and varied. Let's invite one another to exchange mathematical ideas.

Listed below is a collection of individuals who are interested in visiting other institutions and giving the indicated talks. It is the responsibility of each host institution to make arrangements with the lecturer they select. The host institution is to provide travel expenses and local arrangements for the lecturer. No honorarium is expected.

The levels at which the talk can be given are coded as follows:

Level 1 - Suitable for freshman mathematics students.

Level 2 - Assumes calculus and linear algebra.

Level 3 - Appropriate for junior/senior mathematics students.

Level 4 - Designed for mathematics graduate students.

Note also that the preferred days of the week are listed and a maximum distance an individual intends to travel.

Ph. 515-294-8130 Lecturer: Cliff Bergman Days preferred: T W Th Address: 2823 Ontario St. Within the state Ames, IA 50010 LEVEL TITLES 1. Public Key Crypotsystems Ph. 515-294-8144 Lecturer: A.M. Fink Address: Department of Mathematics Days preferred: any weekday Iowa State University Within the state Ames, IA 50011 LEVEL TITLES

1,2,3

1,2,3

3. How to Find a Needle in a
Linear Haystack
1,2,3
4. How Large a City can an Insecure
Police Force Patrol?
1,2,3
5. Rigid Motions of a Plane
3. Round Heads have Higher I.Q.'s than Squares 1,2,3

The Spherical Dipstick

Nim and Grundy Functions

1.

2.

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Lecturer: Peter Flusser	Ph: 319-385-8021
Address: Iowa Wesleyan College Mt. Pleasant, IA 52641	Days preferred: Th Within the state.
TITLES  1. Why use three variables when one will do?  2. The Reaction Function: Can it Predict Election Outcomes?  3. Solving Cubics in Finite Fields	LEVEL  1  2  3
Lecturer: Richard A. Groeneveld	Ph: 515-294-5584
Address: 324 Snedecor Hall Iowa State University Ames, IA 50011	Days preferred: T Th Within 200 miles
TITLES  1. Maximal Errors in Finite Population Estimation  2. Probabilistic Properties of the Best of a 2n - 1 Game Series  3. Measuring Skewness	3
Lecturer: Robert V. Hogg	Ph. 319-353-7355
Address: Department of Statistics and Actuarial Science University of Iowa Iowa City, IA 52242	
TITLES  1. Robust Statistical Procedures  2. Statistics and Society  3. Problems in Estimation	LEVEL 2,3,4 1 2,3,4
Lecturer: Charles H. Jepsen	Ph: 515-236-2810
Address: Mathematics Department Grinnell College Grinnell, IA 50112	Days preferred: W Within 100 miles
TITLES  1. Coloring Points on the Unit Square  2. Coloring Points on the Projective Pl  3. Packing a Box with Bricks.	LEVEL 2,3 lane 3 1,2,3

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Lecturer: Calvin Jongsma  Address: Dordt College	Ph: 712-722-3771 ext. 6307 Days preferred: Any weekday
Sioux Center, IA 51250	Within 200 miles
TITLES  1. What does logic have to offer mathematics?	LEVEL
The art of proofmaking	3
* Lecturer: Stuart Klugman	Ph: 319-353-6793
Address: Department of Statistics and Actuarial Science University of Iowa Iowa City, IA 52242	Days preferred: T Th Within 100 miles
TITLES	LEVEL
<ol> <li>How Many Games Should be Played in a World Series?</li> <li>Combining Apples and Oranges:</li> </ol>	1
Credibility Theory and Insurance Ratemaking	2,3
<ol><li>Probability Models for Insurance Losses</li></ol>	2,3
* Travel paid by ASA Visiting Lecture	er's Program
	a na
Lecturer: Robert J. Lambert	Ph: 515-294-8170
Address: 400 Carver Hall Iowa State University Ames, IA 50011	Days preferred: T W TH Within 200 miles
TITLES	LEVEL
1. Techniques for Numerical Solution of ODE's.	3,4
<ol> <li>Computing Networks and Their         Problems and Assets: remarks a vector-processing computer main     </li> </ol>	

	P.8
Lecturer: Howard Levine	Ph: 515-294-8142
Address: Department of Mathematics Iowa State University Ames, IA 50011	Days preferred: M W F Within the State
TITLES  1. Why are Uniqueness Theorems Important in Partial Differential Equation  2. What is a Well-Posed Problem?  3. An Illustration of the Use of the Computer to Guess a Theorem in Partial Differential Equations.	2,3
Lecturer: Donald Marxen	Ph: 319-588-7570
Address: Department of Mathematics and Computer Science Loras College Dubuque, IA 52001	Days preferred: Any weekday Within the state
TITLES  1. The Role of Mathematics in the Rise of Science  2. What Can Computers Compute?  3. Unmasking the Concept: Moore-Smith Convergence	LEVEL  1 2 3
Lecturer: Milan Randic	Ph: 515-271-2163
Address: Department of Math and Compute Science Drake University Des Moines, IA 50211	Days preferred: T F Within 100 mi. for T, within 200 mi. for F.
TITLE l. Topics from Graph Theory	LEVEL 1,2,3,4
Lecturer: Dennis Roseman	Ph: 319-353-6889
Address: Department of Mathematics University of Iowa Iowa City, IA 52242	Days preferred: Any weekday Within the state
TITLE 1. How to Explore the 4th Dimension	LEVEL 3,4

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Lecturer: Jonathan Smith Department of Mathematics Lowa State University Ames, IA 50011  TITLE  LEVEL  1. Getting the Nessage Across: Matrices and Coding Theory  Address: Department of Mathematics University of Iowa Lowa City, IA 52242  TITLES  1. Calculus with Infinitesimals 2. Geometry and Microcomputers  1. Calculus with Infinitesimals 2. Geometry and Microcomputers  2. Geometry and Microcomputers  3. Lecturer: Henry M. Walker  Lecturer: Henry M. Walker  Address: Department of Mathematics Grinnell, TA 50112  TITLES  1. Mathematical Cryptanalysis 2. Scheduling Algorithms in Computer Operating Systems: An Application of Calculus and Probability. 2. Sorting Algorithms. 3. Probability and Calculus. 4. Sorting Algorithms. 5. An Introduction to Homotopy Theory. 6. Discussion of the new Advanced Placement Exam in Computer Science for faculty or potential teachers. 7. Sloan's "Model Curriculum for a Liberal Arts Degree in Computer Science for faculty.  Lecturer: L. Zettel  Address: Department of Nathematics and Computer Science Loras College Duburge, IA 52001  TITLE  LEVEL  Days preferred: W within the state  Days preferred: W within the state  Days preferred: Any weekday Within the state  Days preferred: Any weekday Within the state  Lecturer: L. Zettel  Ph: 319-588-7794  Address: Department of Nathematics and Computer Science Loras College Duburge, IA 52001  TITLE  LEVEL  LEVE	AND UNITS WINE THE THE THE THE THE THE THE THE THE TH	· · · · · · · · · · · · · · · · · · ·		
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# NEWS FROM CAMPUSES

#### CENTRAL COLLEGE

Professor Leland Graber attended A Short Course on Systems Programming for College Faculty in June, 1985, sponsored by the Ohio Section of the MAA and Denison University, with support from the GTE Corporation.

Professor Thomas Iverson spent ten weeks of the summer of 1985 on a research grant from the American Society for Electrical Engineers at the Naval Underwater Systems Center, New London, Connecticut.

Leaves: Professor Leland Graber is on leave teaching with the extension program of the University of Maryland in Bitburg, Germany. Professor Agnes Andreassian is on leave completing the requirements for an M.S. Degree in computer science at the University of Washington.

The Mathematics/Computer Science Department received an NSF College Science Instrumentation grant for the purchase of a UNIX-based mini-computer for use as a laboratory machine in the Operating Systems course and other upper-level computer science courses. The order for an AT&T model 3B2/400 has been placed.

Agnes Andreassian attended the Conference of the North Central Section of the MAA on discrete mathematics at St. Olaf College, Northfield, Minnesota.

Promotions: Thomas Iverson was promoted to Full Professor.

Temporary Additions: James Yang and Reza Hamedi.

#### CORNELL COLLEGE

Computer science at Cornell College has now become a separate department.

Resignations: Axel Koenig has enrolled in graduate school at Iowa State University.

Additions: James H. Freeman comes to Cornell from Ripon College and Judy Vopava comes to Cornell from Grinnell College.

#### CLARKE COLLEGE

Carol Spiegel has completed her Ph.D. at the University of Iowa in August of 1985.

The Computer Science Department hosted a memorial symposium in commemoration of Sister Mary Kenneth and her contributions on the 20th anniversary of her founding of the Computer Sciences Department. The Symposium was held October 26 and 27, 1985, and included the addresses "Future of Computers" by John Jackobs of Coe College and "Computing Ethics" by William Dorn of the University of Denver.

#### DORDT COLLEGE

Arnold Veldkamp attended IFRICS at Clarkson University in Potsdam, New York, to retrain as a computer scientist. He also attended the Sixth Biennial Conference on Christianity and Mathematics at King's College, Briarcliff, New York.

Willis Alberda attended the Fifth Biennial Conference of the North Central Section of the MAA on discrete mathematics at St. Olaf College, Northfield, Minnesota.

Resignations: Marv Huisman accepted an industry-related job.

Additions: Dennis De Jong and Marv Wieland are instructors in Computer Science and Mathematics. Jim Bos has been hired as the Computer Center Coordinator and Systems Developer.

#### DRAKE UNIVERSITY

Luz De Alba attended the IFRICS program at Kent State University during the summer of 1985. Ken Kopecky attended the SIGGRAPH SHORTCOURSE and meeting in California in the summer of 1985. Milan Randic made several Chemical Graph Theory stops in Europe in the summer of 1985.

Promotions: Milan Randic to Full Professor.

Leaves: Wayne Woodworth continues his leave at Bankers Life Des Moines.

#### GRINNELL COLLEGE

Charles Jones completed the IFRICS program.

Eugene Herman and Charles Jepsen presented a mini-course at the summer MAA meetings at Laramie, Wyoming, entitled, "The Use of Computing in the Teaching of Linear Algebra."

Emily Moore taught a workshop on computer graphics which Arnold Adelberg and Charles Jepsen attended.

Charles Jones taught a workshop on LOGO attended by Arnold Adelberg, Eugene Herman, Anita Solow, Henry Walker, Charles Jepsen, and John Stone.

Henry Walker was an invited participant at a Sloan sponsored workshop entitled "Model Curriculum for a Liberal Arts Degree in Computer Science" held at Colgate University.

Henry Walker gave an invited address at the World Conference on Computers in Education at Norfolk, Virginia. The address was entitled "Developing an Advanced Placement Computer Science Course."

Henry Walker served as a table leader for AP reading in Computer Science.

Leaves: Tom Moore and Emily Moore

Resignations: Kathy O'Hara

Additions: Mark Kannowski, Instructor in Mathematics

#### IOWA STATE UNIVERSITY - DEPARTMENT OF MATHEMATICS

Iowa State University announces their new Master of School Mathematics (MSM) Program which is intended for inservice high school mathematics teachers. Requests for general information and/or admissions forms and teaching scholarships should be made to Professor A.M. Fink, Coordinator of Graduate Studies, Mathematics Department, ISU, Ames, IA 50011.

The Department's colloquium meets every Tuesday at 4:10 p.m. In addition, this year's seminars include those covering the following topics: Numerical Bifurcation Analysis, Fixed Point Theory, Partial Differential Equations, Integral Equations, Universal Algebra and Logic, and Functional Analysis.

#### IA State U. (cont'd)

Promotions: Harry F. Smith to Full Professor, and Paul E. Sacks to Associate Professor.

#### Leaves:

James Cornette - Faculty Improvement Leave at the National

Cancer Institute, Bethesda, MD.

John Goldwasser - On leave at Amherst, College, Amherst

N.Y.

Leslie Hosben - Maternity Leave

Wolodmyr Madch - On leave at University of Connecticut

Richard Miller - Faculty Improvement Leave at

University of Graz, Austria, 1/1/86 - 5/20/86.

Stuart Nelson Harry Smith

- On leave at University of Connecticut.

- Faculty Fulbright at Ateneo de Manila

University, Manila, Philippines.

Steve Wilson - Faculty Improvement Leave at

University of Toronto, Toronto, Ontario

James Wilson - Personal leave.

Deaths: Aggie G. Ho

#### Additions:

Stephen Comer - Visitor from Citadel, Charleston, S.C.

Yiu Tung Poon - Temporary Asst. Professor from UCLA.

John Quigg - Visiting Asst. Professor from Arizona

State.

Robert Sine - Visiting Professor from University of

Connecticut.

Bruce Wagner - Asst. Professor from University of

California, Davis.

### IOWA STATE UNIVERSITY - DEPARTMENT OF STATISTICS

Oscar Kempthorne became president of the International Statistical Institute in August, 1984, and has now completed his year of service.

Herbert T. Davis was appointed chair of the Institute of Mathematical Statistics Archives Committee, and H.A. Davis is vice-chair of the Committee on ASA Archives.

H.A. Davis was appointed co-chair of the American Statistical Committee on filming of Distinguished Statisticians.

Kenneth J. Koehler is governor of District 6 of the ASA and a member of the Executive Committee for the ASA Council of Chapters.

IA Stat U. - Dept. of Stat. (cont'd)

William J. Kennedy became Editor-elect of the American Statistician on January 1, 1985. Wayne Fuller, Glen Meeden, V.A. Sposito, and Stephen Vardeman continue as associate editors.

Wayne A. Fuller is associate editor of the Journal of Business and Economic Statistics.

Krishna Athreya is an associate editor of Zeitschrift Fur Wahrscheinlichkeitstheorie and serves on the editorial board of Statistics and Probability Letters.

Noel A.C.Cressie was apppointed associate editor of the Journal of the American Statistical Association Theory and Methods Section. David Harville also continues to serve as associate editor. Glen Meeden is an associate editor of JASA's Book Review Section.

Paul Hinz continues as an associate editor of the Iowa State Journal of Research.

Oscar Kempthorne is on the editorial advisory board of the Journal of Statistical Computation and Simulation. He is also a member of the executive committee for the Journal of Statistical Planning and Inference.

William Q. Meeker is an associate editor of Technometrics and will take over as editor on January 1, 1986. He also serves on the editorial board for Selected Tables in Mathematical Statistics.

Edward Pollak was apppointed to the editorial board of Mathematical Biosciences.

Mark Reisder is a member of the editorial board for Sociological Methods and Research.

Leroy Wolins continues as a member of the board of editors for Educational and Psychological Measurement and associate editor for Educational Statistics.

The following faculty members attended the meetings of the American Statistical Association and the Biometric Society and presented papers in Philadelphia: Yasuo Amemiya, Noel A.C. Cressie, H.T. David, Wayne A. Fuller, Ronaldo Iachan, Steven Vardeman, W.J. Kennedy, Mervyn Marasinghe, William Q. Meeker, David A. Harville, V.A. Sposito, W. Robert Stephenson, and Kenneth J. Koehler.

Also, the following presented papers at the Eastern Regional Meeting of the Institute of Mathematical Statistics on Stony Brook: K.B. Athreya and Wayne A. Fuller.

IA State U. - Dept. of Stat. (cont'd)

Glen Meeden was elected a Fellow of the Institute of Mathematical Statistics.

Noel A.C. Cressie was elected a member of the International Statistical Institute.

Donald K. Hotchkiss received a Faculty Citation in recognition of long, outstanding, and inspiring service at ISU.

W. Robert Stephenson received a 1985 Outstanding Academic Advising Award.

Promotions: Frederick Lorenz to Associate Professor.

Leaves: Yasuo Amemiya is on Faculty Improvement Leave for the Academic Year 1985-86 at Stanford University's Department of Statistics.

Robert Strahan is on a six-month Faculty Improvement Leave to develop a set of annotated computer analyses of typically-encountered research problems for use in consulting.

Noel A.C. Cressie is on Leave Without Pay, working in Washington, D.C. from July 15 through December 31, 1985 as an American Statistical Association/Bureau of the Census Fellow to work on spatial statistics aspects of small area estimation.

Thomas Bubolz is on a year's leave, serving as a visiting professor in the Department of Community and Family Medicine, School of Medicine at Dartmouth College.

Resignations: Ronaldo Iachan, to Research Triangle Institute.

#### IOWA WESLEYAN COLLEGE

Iowa Wesleyan College faculty is working on a core program of courses which will include some mathematics courses.

Peter Flusser led a workshop entitled "Stimulation through Simulation" at the regional NCTM meeting in Kansas City in October, 1985.

#### LORAS COLLEGE

Dr. D. Marxen attended the Discrete Mathematics workshop at St. Olaf College in June of 1985. Sr. K. Sullivan was accepted into the Master's Program in Computer Science at the University of Iowa and began course work in the summer of 1985.

Dr. H. Holles designed and offerred a new course for Liberal Arts majors. Dr. L. Zettel will offer a new course in Compiler Design in the spring semester.

Promotions: Dr. D. Marxen to the rank of Professor. Dr. L. Zettel to the rank of Professor.

Resignation: Dr. S. Moisman resigned to take a position at IBM in Rochester, MN.

#### LUTHER COLLEGE

George Trytten represented the Iowa Section of MAA at the summer meeting in Laramie, Wyoming.

The Department of Mathematics is offering a new course entitled Applied Linear Regression Analysis. The Department is offering a colloquium series Applied Mathematical Models from the COMAP series.

Leaves: Don Pilgrim.

Resignations: Richard Bernatz and Duane Emerson.

Additions: Awad Rasras and Cheryl Wansness.

#### MAHARISHI INTERNATIONAL UNIVERSITY

Michael Weinless was appointed president of the Maharishi Institute of Vedic Mathematics founded by Maharishi Yogi of Delhi in September, 1985.

Dr. Niu Shi-Wei, visiting professor at MIU, has been appointed as a member of the Maharishi Institute of Vedic Mathematics.

Cathy Gorini was appointed Dean of the College of Arts and Sciences.

Leaves: David Streid has taken a leave of absence to complete his Ph.D. at the University of Illinois.

#### Maharishi Int'l U (cont'd)

Visiting Faculty: James Denton of Amherst College, May-June, 1985. Anne Dow of University of Queensland, Dec. 1984-Jan. 1986. John Price of the University of New South Wales, Nov.-Dec. 1985. Niu Shi-Wei of the Chinese Academy of Science, Beihing, March 1985-March 1986. Franz Harpain of Vancouver Community College, Sept.-Oct. 1985.

#### MOUNT MERCY COLLEGE

Two new courses are being offered in computer science this fall, Computation Theory; Alphabets, Languages, Machines and Computer Theory: Logic and Program Correctness.

Additions: Robert Franks has joined the department and is teaching computer science. He holds a master's degree in computer science from Iowa State University and has taught previously at Northwest Missouri State University.

#### SIMPSON COLLEGE

Marvin Van Wyk attended a computer short course entitled "Operating Systems" at the University of California at Santa Cruz on August 5-9, 1985.

A new Discrete Mathematics course is being offerred for the first time in the 1985-86 academic year.

William Dunning has been appointed Chairman of the Mathematics Department.

Kathy Forland and Ronald Huff are staff additions this fall.

#### UNIVERSITY OF 10WA - DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE

Bob Hogg is the Program Chairman for the Second International Conference on Teaching Statistics to be held in Victoria, B.C. on August 11-15, 1986.

A conference held at Iowa and organized by Bob Hogg during the summer of 1984 has resulted in a proposal to establish at Iowa an MS program in Quality Assurance. It is anticipated that this program will be joint between Statistics, Industrial Engineering and Management.

U of IA - Dept. of Stat. (cont'd)

Bob Hogg has been elected to the American Statistical Association Board and to the Council of the Institute of Mathematical Statistics.

A Conference on Order Restricted Inference was held at Iowa in September, 1985. The conference was sponsored by the Office of Naval Research and the University of Iowa and organized by Richard Dykstra and Tim Robertson. About 30 participants from the United States and Canada attended the conference.

Richard Dykstra has been elected to Fellowship in the Institute of Mathematical Statistics.

Stuart Klugman is a member of the Scientific Committee, NATO Advanced Study on Insurance.

Jim Broffitt is on leave during 1985-86 at the University of Western Ontario.

Johannes Ledolter is on leave during 1985-86 at Princeton University.

Russ Lenth is on leave during 1985-86 at the University of Wyoming.

Three new assistant professors in the Department of Statistics and Actuarial Science are Mark Conaway (Ph.D. Minnesota), Jim Sconing (Ph.D Florida State), and Jim Calvin (Ph.D. Colorado State).

The Allen Craig Lecturer this year will be Steven Stigler - University of Chicago (April 8,9, 1986).

Joseph Sedransk will assume duties as Chair of the Department of Statistics and Actuarial Science for a two and one-half year term, effective Jan. 16, 1986. Prior to his appointment to the UI faculty at the rank of professor, he spent six years as professor of mathematics at SUNY at Albany. In addition, Sedransk has held regular and visiting faculty positions at a number of other institutions, including SUNY at Buffalo, the University of Wisconsin, Stanford, Harvard, the Federal Reserve Board and Iowa State University.

Sedransk, who received his bachelor's degree in economics from the University of Pennsylvania and his doctorate in statistics from Harvard, is an internationally recognized authority in survey sampling.

Sedransk succeeds John Birch, who served for the past two and one-half years as acting chair of the department while a search was being conducted for a new chair.

#### UNIVERSITY OF NORTHERN IOWA

Professor Hyo Myung was asked to lecture at two conferences this summer, one in Seoul, Korea, and the other in Kyoto, Japan.

Professor Beck attended a software workshop in Tyinsboro, Mass.

Under the direction of Professors Ed Rathmell and Jack Wilkinson, UNI sponsored a conference in effective math teaching with speakers from the Universities of Missouri, Michigan, and Wisconsin.

Professor Stan Walljasper participated in RAGBRAI this summer, biking across the state of Iowa.

Computer Science Education is a new major in the Master of Arts Degree Program. Two new classes being offered are Artificial Intelligence and Intro. to Stochastic Processes.

Professor Thomas F. Banchoff, mathematician from Brown University, will be giving a lecture on computer animation and geometric surfaces in 3rd and 4th dimensional space. This lecture is being given in connection with the UNI Mathematics and Science Symposium.

Leaves: Professor Hyo Myung and Associate Professor Diane Thiessen are on leave for P.D.L. Asst. Professor Farhad Farzaneh is on leave to do graduate work.

Additions: Assistant Professors Philip East, Mark Fienup, and Tet Liew.

#### UPPER IOWA UNIVERSITY

Professor James Janecke attended A Short Course on Systems Programming for College Faculty in June, 1985, sponsored by the Ohio Section of the MAA and Denison University, with support from the GTE Corporation.

#### WILLIAM PENN COLLEGE

Deborah Trytten attended summer school at UNI in computer science.

#### WARTBURG COLLEGE

Chris Schmidt completed his first summer of IFRICS on the Kent State University campus.

Bill Waltmann attended the Fifth Biennial North Central Section of MAA Summer Seminar on the Application of Discrete Mathematics held at St. Olaf College, June 16-21, 1985. He also completed a mini-course entitled "Computing in Undergrate Linear Algebra" held at the National Math Meetings in Laramie, Wyoming, August 13-14, 1985.

On June 12, Bill Waltmann developed another test unit for the Development Department of the ACT Program to be used in the Preliminary Actuarial Examination.

Wartburg College selected Dr. Lynn Olson for its second annual award entitled "Professor of the Year" for the 1984-85 academic year.

The Department plans to offer a new course entitled "Mathematical Modeling."

#### CHINA -- SUMMER 1986

The Ministry of Science and Technology of the People's Republic of China has invited a delegation of mathematicians, computer scientists, and other mathematical scientists to tour China for the purpose of exchanging ideas and information. The tour departs San Francisco on 18 June, 1986, with a return date around 6 July, 1986. Members of the delegation will be expected to prepare a presentation on a topic in their field of expertise which would be of interest to our Chinese counterparts.

For more information contact:

Mel Nyman, Chair Mathematics & Computer Science Alma College Alma Michigan 48801

517-463-7264

IFRICS

# Institute for Retraining in Computer Science Announcement of New Classes Forming For Summer 1986

The purpose of IFRICS is to provide training in Computer Science that will qualify faculty in mathematics (and other fields) to teach many of the undergraduate courses in Computer Science. It is a two-summer program that involves 8 weeks of residence each summer at one of the two campuses at Kent, Ohio or Potsdam, New York. There is a supervised large scale programming project that must be completed during the intervening year between the two summers.

IFRICS uses outstanding computer scientists from the top computer science departments in the country to give a series of intensive four-week courses that make up a unified curriculum.

# Curriculum

# First Summer

Introduction to Programming
Intro to Theoretical Computer Science
Data Structures
Science of Programming

# Second Summer

Page 21

Programming Languages/Paradigms Architecture and Assembly Language Compilers Operating Systems

# Faculty

(The year indicates when they have taught)

Selim Akl (Queens, Ont.) 85
Tim Budd (Arizona) 85
Mike Clancy (Berkeley) 84, 85
Alan Demers (Cornell) 84
Scot Drysdale (Dartmouth) 84, 85
Ramez Elmasri (Houston) 84, 85
Merrick Furst (Carnegie-Mellon) 83
John Gilbert (Cornell) 83, 84, 85
David Gries (Cornell) 83
Eric Hehner (Toronto) 84, 85

Peter Henderson (Stony Brook) 85
Deborah Joseph (Wisconsin) 84, 85
Hank Korth (Texas) 84, 85
Gary Levin (Arizona) 83, 84, 85
Rich Pattis (Washington) 85
Mike Powell (DEC Western Research) 84
Larry Rudolph (Carnegie-Mellon) 84, 85
Avi Silberschatz (Texas) 85
Mike Sipser (MIT) 83, 84
David Wall (DEC Western Research) 83, 84
Alessandro Zorat (Stony Brook) 85

Although most participants go through the entire program, there are a small number of places for people who want to do only the second summer material.

For more information and application forms, contact:

Linda Henry, Associate Director Institute for Retraining in Computer Science c/o Department of Math and Computer Science Clarkson University Potsdam, New York 13676 Telephone: 315-268-2382

Director, Potsdam Branch Ed Dubinsky

Director, Kent Branch Darrell Turnidge Berkeley, California, U.S.A.



# FIRST ANNOUNCEMENT

The U.S. National Committee for Mathematics of the U.S. National Academy of Sciences is pleased to announce that the next International Congress of Mathematicians will be held at the University of California, Berkeley, from Sunday, August 3 through Monday, August 11, 1986. The university is situated along gently sloping hills that overlook the city of Berkeley, and, across the bay, the city of San Francisco and the Golden Gate Bridge.

# **Mathematical Program**

The work of the Congress will be divided into 19 sections. There will be about 16 invited one-hour expository addresses covering recent developments in the major areas of mathematics, and approximately 130 invited 45-minute lectures in the sections. All Ordinary Members of the Congress will have an opportunity to present ten-minute communications of contributed papers, and to hold informal mathematical seminars on their own initiative. All scientific sessions of ICM-86 will be held on the campus of the University of California, Berkeley.

All invited lectures will be published in the Proceedings of ICM-86. A complimentary copy will be sent to each Ordinary Member of the Congress. Abstracts of the short communications will be distributed to Ordinary Members at the Congress at no charge.

English, French, German and Russian are the official languages of the Congress.

# Social Events

The Chancellor of the University of California. Berkeley, will host an opening reception for all registered participants on Sunday evening. August 3. On Thursday, August 7, all registered participants will have an opportunity to attend an authentic Western Barbecue and Rodeo at the Cow Palace in San Francisco. Both the reception and barbecue/rodeo will be free to all registered Ordinary and Accompanying Members. During ICM-86, short day trips to local sites of interest in the scenic Northern California area will be available. Preregistrants will have an opportunity to purchase these day trips in advance, as well as several pre- and post-Congress tours. More detailed descriptions of these activities will appear in the Second Announcement.

#### **Accommodations**

Participants will be housed in a variety of hotels and student residence halls in Berkeley, Oakland and San Francisco. Detailed information on locations and rates will be provided in the Second Announcement, which will include a preregistration/housing request form to complete and return to ICM-86.

TEAR HERE

In order to receive the Second Announcement of ICM-86, please complete this form and return so as to arrive by September 30, 1985 to: ICM-86.

Post Office Box 6887

Providence. Rhode Island 02940

U.S.A.

Please PRINT your name and address below as you would like them to appear on the official Congress records.

lame:(last/family/surname)	(first/given name)	(middle name/initial)
Mailing Address:	(institution)	
(street and number)	(city or town)	(zip or postal code)
(state, province, etc.)		(country)

My two major areas of mathematical interest, according to the 19 subject classifications listed below, are:

Primary	Secondary	

TEAR HERE

- 1. Mathematical logic and foundations
- 2. Algebra
- 3. Number theory
- 4. Geometry
- 5. Topology
- 6. Algebraic geometry
- 7. Complex analysis
- 8. Lie groups and representations

- 9. Real and functional analysis
- 10. Probability and mathematical statistics
- 11. Partial differential equations
- 12. Ordinary differential equations and dynamical systems
- 13. Mathematical physics
- 14. Numerical methods and computing

- 15. Discrete mathematics and combinatorics
- 16. Mathematical aspects of computer science
- 17. Applications of mathematics to nonphysical sciences
- 18. History of mathematics
- 19. Teaching of mathematics

# Second Announcement

The Second Announcement of ICM-86 will describe all activities of the Congress in detail, and provide instructions on how to complete the preregistration process and obtain accommodations. It will provide more, although not complete, information on the scientific program, and give instructions regarding the submission of abstracts of short communications and the organization of informal seminars. Advice will be given on how to proceed upon arrival at either the San Francisco or Oakland International airports. Full descriptions and prices will be given of the available day trips and pre- and post-Congress tours; preregistrants will be given the opportunity to purchase these in advance.

If you wish to receive the Second Announcement, please **PRINT** your name and address on the above form and mail it so as to reach ICM-86 **no later than September 30, 1985**. The Second Announcement will be mailed to you before the end of 1985.

# 1985-36 OFFICERS OF THE IOWA SECTION

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#### FROM THE EDITOR

Thanks to everyone who sent us information to include in this issue. Please continue to send us any newsworthy information, even if I don't ask for it.

It seems that it would be more appropriate to have this newsletter go out early in the fall, especially for the publication of the lecture series. I will try to get it out earlier in the future.

Send us any news for the spring issue. Thanks!

D. Meyer

Department of Mathematics Central College Pella, IA 50219

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