

THE 1978-79

LECTURE PROGRAM

OF THE

IOWA SECTION

OF THE

MATHEMATICAL ASSOCIATION OF AMERICA

The Lecture Program of the Iowa Section of the Mathematical Association involves mathematicians in Iowa who are interested in visiting colleges and lecturing to undergraduate students. Each lecturer has volunteered to do so without an honorarium, but the host college is to provide for all expenses incurred (mileage, meals, and lodging). Please be sensitive for the need for lodging if the lecturer must travel quite far.

Note that the list of visiting mathematicians includes the titles of the lectures they have suggested, the level of each lecture (level I = freshman, sophomore; level II = junior, senior), the day of the week on which they prefer to visit, and a mileage limit from their home.

Each college that decides to invite a lecturer should have a representative write directly to the lecturer to make arrangements for a visit. The Iowa Section wishes to record the activity in the program, and thus we ask that notifications of the visits be sent by the schools to the secretary of the Iowa Section, Professor James Peake, Department of Mathematics, Iowa State University, Ames, Iowa 50010.

Name: Kendall E. Atkinson  
Department of Mathematics  
University of Iowa  
Iowa City, Iowa 52242

Preferred Week Day:  
M\_\_ T  W\_\_ Th\_\_ F\_\_  
Preferred Mileage Limit:  
within 100 miles.

<u>Title</u>	<u>Level</u>
1. Polynomial Interpolation	I - II
2. Integral Equations	II
3. Numerical Integration	I - II

Name: Peter Colwell  
Department of Mathematics  
Iowa State University  
Ames, Iowa 50011

Preferred Week Day:  
No Preference  
Preferred Mileage Limit:  
within 200 miles.

<u>Title</u>	<u>Level</u>
1. Vieta's Infinite Product: A Matter of Identity	I
2. Power Series	II
3. Abel's Integral Equation: An Answer With Some Interesting Questions	II
4. Programmable Calculators as an Excuse for Using Mathematics	I or II (examples for each level)

Name: Robert B. Feinberg  
Mathematics Department  
Iowa State University  
Ames, Iowa 50011

Preferred Week Day:  
M  T  W  Th  F

Preferred Mileage Limit:  
No limit

Title

Level

1. Symbolic Solution of Linear Differential  
Equations

II

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Name: A. M. Fink  
Mathematics Department  
Iowa State University  
Ames, Iowa 50010

Preferred Week Day:  
M  T  W  Th  F

Preferred Mileage Limit:  
No limit

Title

Level

1. Polynomials Are All You Have to Integrate
2. Roundheads Have Higher IQ's Than Squares
3. Max-Min Problems Without Calculus
4. To Know the Difference, is Sometimes Enough
5. How to Divide a Cake Fairly

II

I

II

II

I

Name: Roy F. Keller  
Computer Science Department  
Iowa State University  
Ames, Iowa 50010

Preferred Week Day:

M\_\_ T\_\_ W\_\_ Th  F\_\_

Preferred Mileage Limit:  
within 150 miles.

<u>Title</u>	<u>Level</u>
1. On Teaching "Into" Programming	I
2. On Constructing Correct Programs	II
3. Numerical Analysis and Constructing Algorithms	II
4. Developing A Computer Science Curriculum	General Audience

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Name: Philip Kutzko  
Department of Mathematics  
University of Iowa  
Iowa City, Iowa 52240

Preferred Week Day:

M\_\_ T  W\_\_ Th  F\_\_

Preferred Mileage Limit:  
within 250 miles.

<u>Title</u>	<u>Level</u>
1. The Chinese Remainder Theorem: The Development of a Mathematical Idea	II

Name: Lynn J. Olson  
Department of Mathematics  
Wartburg College  
Waverly, Iowa 50677

Preferred Week Day:  
M  T  W  Th  F   
Preferred Mileage Limit:  
within \_\_\_\_\_ miles.

Title

Level

1. Elementary Linear Programming and the  
Simplex Algorithm

I

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Name: Dennis Roseman  
Mathematics Department  
University of Iowa  
Iowa City, Iowa 52240

Preferred Week Day:  
M  T  W  Th  F   
Preferred Mileage Limit:  
within 150 miles.

Title

Level

1. The Exploration of Four Dimensional Space  
2. The Mathematical Theory of Knots  
3. Klien Bottles and Stuff Like That:  
The Topology of Manifolds

I or II

I or II

II

Name: Dennis R. Steele  
Department of Mathematics  
Graceland College  
Lamoni, Iowa 50140

Preferred Week Day:  
M\_\_ T<sup>✓</sup> W\_\_ Th<sup>✓</sup> F\_\_

Preferred Mileage Limit:  
within Iowa.

<u>Title</u>	<u>Level</u>
1. Picard-Chebyshev Iterations on Non-Linear Initial Value Problems	II
2. Ten "Tricks" and Their Continual Occurrence in Applied Mathematics	II
3. Workshop Topology: An Introduction to Non-Numerical Mathematics	I
4. Some Mysterious Numbers and Their Unexpected Occurrences	I

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Name: K. D. Stroyan  
Math. Sciences  
University of Iowa  
Iowa City, Iowa 52242

Preferred Week Day:  
M\_\_ T<sup>✓</sup> W\_\_ Th\_\_ F\_\_

Preferred Mileage Limit:  
within 200 miles.

<u>Title</u>	<u>Level</u>
1. Elementary Infinitesimal Calculus (with real live infinitesimals!)	I or II

Name: Henry M. Walker  
Department of Mathematics  
Grinnell College  
Grinnell, Iowa 50112

Preferred Week Day:  
p.m.  
M\_\_ T  W\_\_ Th only F\_\_

Preferred Mileage Limit:  
Anywhere is fine.

<u>Title</u>	<u>Level</u>
1. Math for Spies: Cryptanalysis Before 1920	I
2. Calculus in Probability	I
3. Group Theory in Topology	II
4. Sorting Algorithms	I
5. Computer Scheduling: An Example of Calculus and Probability in Computer Science	I or II

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