

MATHEMATICS

(Iowa Section of the Mathematical Association of America)

Section Chairman: D. F. Bailey

Program Chairman: D. H. Pilgrim

Friday, 9:00 A.M. - 10:00 A.M.

Room 205, Baker-Hebron Science Hall

- 9:00 a.m. 1. Isoderivative curves, GEORGE BRIDGMAN, Waverly.
- 9:20 a.m. 2. A mean value theorem for integrals. DONALD F. BAILEY, Mt. Vernon
- 9:40 a.m. 3. A simplified proof of Bezout's Theorem. ARNOLD ADELBERT, Grinnell.

Friday, 2:00 P.M. - 4:45 P.M.

- 2:00 p.m. 4. A small college cooperative seminar. E. T. HILL, Mt. Vernon.
- 2:20 p.m. 5. An interval-dependent necessary condition for N-place accuracy in Picard-Chebyshev solution of an initial value problem. DENNIS R. STEELE, Lamoni
- 2:40 p.m. Coffee-discussion break
- 3:00 p.m. INVITED LECTURE: "Ramsey Theory and the Problem of Eccentric Hosts". Dr. Seymour Schuster, Carleton College
- 4:00 p.m. Business Session.

PHYSICS

Chairman: M. De Young

Friday, 2:00 P.M. - 3:45 P.M.

Room 109, Baker-Hebron Science Hall

Symposium and discussion: Philosophy of Science

- 2:00 p.m. 1. Attractive scientists. PAUL A. SMITH, Cedar Rapids.
- 3:00 p.m. 2. Metaphysical presuppositions about science and nature among science faculty. PHILLIP DURKEE, Iowa City.

Saturday, 8:30 A.M. - 12:00 NOON

Room 207, Baker-Hebron Science Hall

- 8:30 a.m. 3. An evolutionary model of Jupiter. ALLEN S. GROSSMAN, Ames.
- 8:50 a.m. 4. Quasar red-shifts. D. K. ROSS, Ames.

GEOLOGY

Chairman: R. C. Palmquist

Friday, 2:00 P.M. - 5:00 P.M.

Room 101, Baker-Hebron Science Hall

Symposium: IOWA COAL

(Joint Session with the Conservation Section)

Saturday, 8:15 A.M. - 12:00 NOON

Room 109, Baker-Hebron Science Hall

R. C. Palmquist, presiding

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| 8:15 a.m. | 1. Variations in topographic features of the Des Moines drift sheet in north-central Iowa. KATHY R. CONNOR, Ames. |
| 8:30 a.m. | 2. Compositional and textural analysis of Kansan and Tazewell till in a portion of northwest Iowa. KENT VAN ZANT, Iowa City. |
| 8:45 a.m. | 3. Physical properties of the tills at Scranton II, Iowa. GARY BIBLE, Ames. |
| 9:00 a.m. | 4. Possible fracture controlled drainage in northeast Iowa as identified by ERTS-1 imagery. GREG LUDVIGSON, Iowa City. |
| 9:15 a.m. | 5. Karst geomorphology of northeastern Iowa. G. A. MADENFORD, Ames, NICK VAN DRIEL, Reston, Va. |
| 9:30 a.m. | 6. Environment of deposition of the Cedar Valley Formation in Benton, Black Hawk and Buchanan Counties. STEPHEN V. WIIG, WAYNE I. ANDERSON, Cedar Falls. |
| 9:45 a.m. | 7. Computerized mapping as an aid in land use analysis. MARY L. LADWIG, L. V. A. SENDLEIN, JAMES B. SINATRA, Ames. |
| 10:00 a.m. | Coffee Break |
| 10:15 a.m. | 8. Spatial variations of ground water quality resulting from landfills on alluvial floodplains. MARK R. STEPHENS, L. V. A. SENDLEIN, Ames. |
| 10:30 a.m. | 9. A geohydrologic investigation of aromatic hydrocarbons in the aquifer supplying Ames, Iowa. E. A. SIUDYLA, L. V. A. SENDLEIN, M. E. NICKLIN, Ames. |
| 10:45 a.m. | 10. Hydrogeology of the Squaw Creek aquifer. MICHAEL E. NICKLIN, MERWIN DOUGAL, L. V. A. SENDLEIN, Ames. |
| 11:00 a.m. | 11. Ground water relationships at the Cedar Rapids municipal landfill located in the old Otis Quarry, DWIGHT C. JOHNSON, L. V. A. SENDLEIN, Ames. |
| 11:15 a.m. | 12. Use of bromide ion as a tracer for sub soil water movement. JAMES O'TOOLE, JAMES L. BAKER, RODNEY WALTERS, THOMAS E. FENTON, Ames. |
| 11:30 a.m. | 13. A year long study of changes in levels of contamination in a group of deep wells. S. CASSADA, S. MADSEN, J. TJOSTEM, Decorah. |
| 11:45 a.m. | Election of Section Chairman |