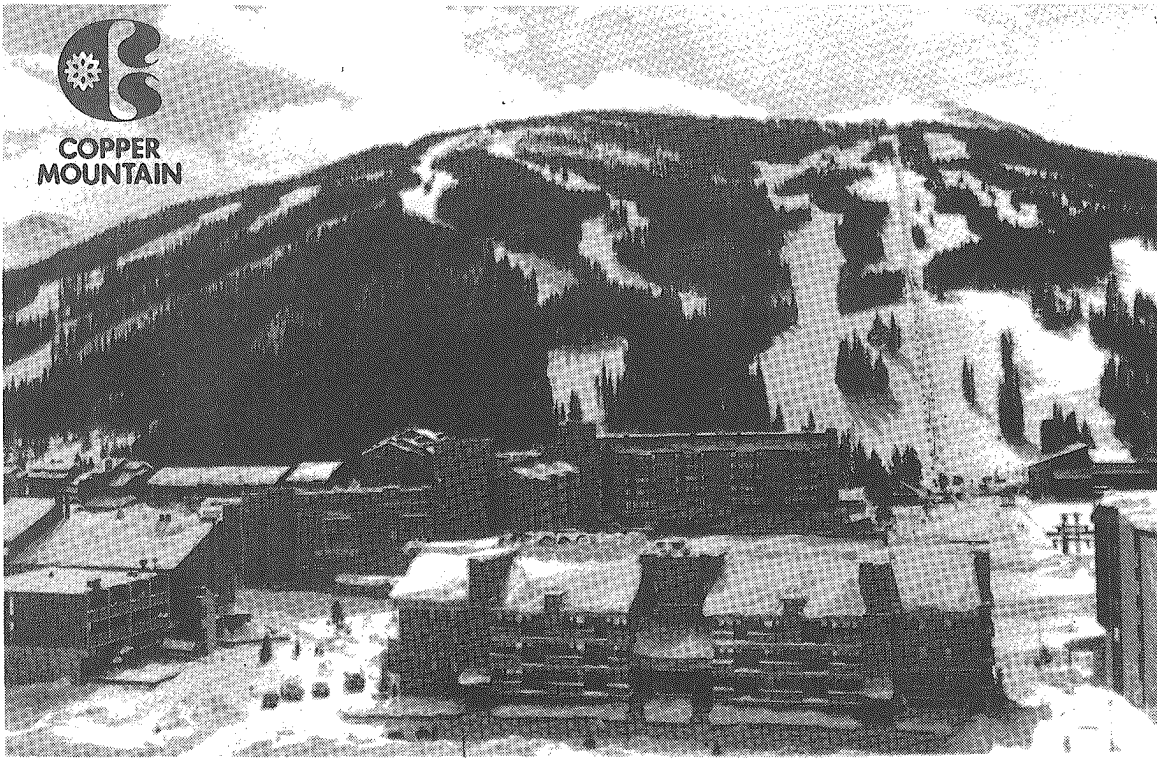


INTERNATIONAL MULTIGRID CONFERENCE
Department of Conferences and Institutes
Rockwell Hall
Colorado State University
Fort Collins, Colorado 80523

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INTERNATIONAL
MULTIGRID

CONFERENCE

APRIL 6-8, 1983

COPPER MOUNTAIN, COLORADO

ORGANIZED BY

THE INSTITUTE FOR COMPUTATIONAL STUDIES

AT COLORADO STATE UNIVERSITY

GESELLSCHAFT FÜR MATHEMATIK UND DATENVERARBEITUNG

SPONSORED BY

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

INTERNATIONAL MULTIGRID CONFERENCE

APRIL 6 - 8, 1983

GENERAL INFORMATION

PURPOSE: The conference will provide a forum for interaction among basic researchers and practitioners. Several lecturers representing both types of activities over a broad range of applications will be featured.

Morning and evening seminar sessions will be held with the afternoons left open for informal workshops and discussions.

LOCATION: The conference will be held at Copper Mountain, Colorado, 75 miles west of Denver. Condominium accommodations and adjacent meeting rooms are in the Village Square Lodge at the base of the Copper Mountain ski lifts.

PROCEEDINGS: The preliminary conference proceedings that include the invited and contributed papers will be available prior to the conference. A limited number of the papers will be selected for review for publication in a special issue of Applied Mathematics and Computation. This issue will be made available to conference registrants at a discount.

Colorado State University is an equal opportunity/affirmative action employer and complies with all Federal and Colorado State laws, regulations, and executive orders regarding affirmative action requirements. The Office of Equal Opportunity is located in Room 314, Student Services Building. In order to assist Colorado State University in meeting its affirmative action responsibilities, ethnic minorities, women, and other protected class members are encouraged to apply and so identify themselves.

REGISTRATION: To pre-register, please return the attached registration form with the \$75.00 conference fee before March 1. Please include the charges for a minimum of one night's lodging with the pre-registration fee.

The registration fee after March 1 is \$85.00 and must include all lodging charges.

Registrants who cancel prior to March 1 will receive a full refund. Those who cancel after March 1 will receive a refund of only the registration fee less \$10 for handling costs.

EARLY REGISTRATION IS STRONGLY
RECOMMENDED TO ENSURE THAT LODGING
ACCOMMODATIONS ARE AVAILABLE DURING
THIS SPRING SKI SEASON AT COPPER
MOUNTAIN, COLORADO.

ACCOMMODATIONS: Reservations in deluxe condominiums have been made for the conference participants. Lodging will be in two-bedroom condominiums suitable for up to five persons. Each condo has three baths, kitchen, dining area, fireplace, and glassed-in balcony.

Requests for single occupancy will reserve a bedroom and private bath for one person.

Requests for double occupancy will reserve a bath and bedroom (two beds) for two persons.

All occupants of the condo unit will have access to the kitchen, fireplace, and balcony.

Please indicate on your registration form your dates and times of arrival and departure. Copper Mountain will honor the special conference lodging rates for early arrivals and late departures on a space available basis.

MEALS: Conference fees include a reception on the evening of Tuesday, April 5, dinner on Wednesday, April 6, and a banquet on Thursday, April 7.

Conference participants will also be able to take advantage of the many dining opportunities that Copper Mountain Resort offers.

COLORADO SPRING WEATHER: Daytime temperatures in April in Colorado may range between 30° and 40° F. with night temperatures between 10° and 20° F. Winter weather may be expected unless spring comes unusually early to the Rockies.

TRANSPORTATION: Copper Mountain is located 75 miles west of Denver via I-70, exit 195. Participants should make airline arrangements through Denver's Stapleton Airport. Several means of ground transportation provide shuttle service to Copper Mountain from Denver.

All major rental car agencies have counters in Stapleton Airport.

Bus service on Continental Trailways from downtown Denver or the airport is also available.

Limousine service to Copper Mountain from the airport provides transportation several times each day. Reservations for the limousine service should be made ahead of time. (1-800-872-7499; in Colorado, 1-668-2310).

RECREATION: Spring skiing should be excellent in April. Special discount lift tickets are available to conference participants. Half-day lift tickets are about \$11 with the half day beginning at 12:30 p.m. Full day lift tickets are \$14.50.

Ice skating, cross-country skiing, snowmobiling, and a self-timed slalom course are also available. Rental equipment and lessons are all opportunities offered by Copper Mountain during the conference.

SPEAKERS - TOPICS

- R. AGARWAL, McDonnell Douglas, "Multigrid solutions using higher-order methods on non-uniform grids"
 D. BAI, Weizmann Inst., "Multi-level adaptive algorithms"
 R. BANK, Univ. Cal. San Diego, "On the role of the smoothing iteration in the multi-level iteration method"
 D. BARKAI, ICS (CAVT), "Vectorized multigrid Poisson solver for the CDC Cyber 205"
 A. BEHIE and P.A. FORSYTH, JR., Computer Modeling Group, "Multigrid solution of three-dimensional problems with discontinuous coefficients"
 J. BLUE, NBS, "Multi-level iteration and semiconductor device modeling"
 A. BRANDT, Weizmann Inst., "Multi-level solution of inverse problems"
 G.D. BYRNE and K.E. JORDAN, Exxon R & E, "A review of some dynamic grid techniques for partial differential equations"
 D. CAUGHEY, Cornell Univ., "Multigrid calculations of 3-dimensional transonic potential flows"
 J. DENDY, LASL, "Black box multigrid for nonsymmetric problems"
 B. FAVINI and G. GUJ, Univ. Rome, "MG Techniques for staggered differences"
 A. GREENBAUM, LLL, "Analysis of a multigrid method as an iterative technique for solving linear systems"
 W. HACKBUSCH, Christian-Albrechts Univ. Kiel, "MG convergence of singular perturbation problems"
 P.W. HEMKER, Math. Center, and R. KETTLER and P. WESSELING, Delft Univ., "Multigrid methods for the convection-diffusion equation"
 M.V. HUSSAINI, ICASE, C. STREET, NASA Langley, and T. ZANG, Coll. William and Mary, "Spectral multigrid methods for non-periodic problems"
 A. JAMESON, Princeton Univ., to be announced
 D. JESPERSEN, NASA Ames, "Design and implementation of a multigrid code for the Euler equations"
 G. JOHNSON, NASA Lewis, "Multiple-grid convergence acceleration of viscous and inviscid flow computations"
 H.N. LEE, Univ. Utah, "Numerical simulation of atmospheric chemical pollutant transport and diffusion by using multi-grid and -step technique"
 D.R. McCARTHY, Purdue Univ. and R.C. SWANSON, NASA Langley, "Imbedded mesh multigrid treatment of two-dimensional transonic flows"
 H.D. MITTLEMAN, Univ. Dortmund, "Multigrid solution of bifurcation problems"
 T. PHILLIPS, ICASE, "Numerical solution of a coupled pair of elliptic equations from solid state electronics"
 G. RODRIGUE, LLL, "Experiences with multigrid on a diffusion problem"
 J. RUGE, ICS, "AMG for geodetic computations"
 S. SCHAFFER, ICS, "Multigrid methods for oil reservoir simulation"
 K. STUBEN, GMD, "AMG: experiences and comparisons " (preliminary)
 F. THAMES, NASA Langley, "Multigrid applications to three dimensional elliptic coordinate generation"
 U. TROTTEBERG, GMD, "Standard applications and more sophisticated (incompressible flow) problems"
 J. VAN ROSENDALE, ICASE, to be announced
 R. VERFURTH, Ruhr-Univ. Bochum, "A combined conjugate gradient-multigrid algorithm for the solution of the Stokes equation"

TENTATIVE SCHEDULE

Tuesday, April 5:	7:00 - 9:00 p.m.	Reception
Wednesday, April 6:	8:00 a.m. - noon	Session I
	5:00 - 6:30 p.m.	Session II
	7:00 - 8:30 p.m.	Dinner
Thursday, April 7:	8:00 a.m. - noon	Session III
	5:00 - 6:30 p.m.	Session IV
	7:30 - 9:30 p.m.	Banquet
Friday, April 8:	8:00 a.m. - noon	Session V

For more information about the conference program, contact:

STEVE MCCORMICK
 The Institute for Computational Studies
 P.O. Box 1852
 Fort Collins, Colorado 80522
 (303) 491-7331 or 491-6900

**REGISTRATION FORM
INTERNATIONAL MULTIGRID CONFERENCE**

APRIL 6 - 8, 1983

PRE-REGISTRATION DEADLINE: MARCH 1, 1983

NAME _____

Company/Agency/Institution _____

Mailing Address _____

Office Phone _____

City, State/Country, Zip _____

Home Phone _____

REGISTRATION INFORMATION:

Pre-registration Fee (before March 1 - \$75.00)

Registration Fee (after March 1 - \$85.00)

Lodging:

_____ nights single occupancy @ \$80.00 per night

_____ nights double occupancy @ \$35.00 per person per night

Spouse accompanying Roommate request

Arrival date _____ Time _____

Departure date _____ Time _____

TOTAL

Please indicate method of payment: (Payment of one night's lodging must accompany all pre-registrations before March 1; payment of all lodging expenses must accompany registrations after March 1; balance of all fees due on arrival at the conference.)

Enclosed is check/money order.

Enclosed is P. O. # _____.

MasterCard Expiration date _____ Authorization # _____

VISA Expiration date _____ Authorization # _____

To receive a full refund of registration and lodging fees, registrants must cancel prior to March 1, 1983. Those who cancel after that date will receive a refund of only the registration fee less \$10 for handling costs.

Please make all checks payable to Colorado State University. Return this registration form and payment to:

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