1998 MATHEMATICAL CONTEST IN MODELING PRESS RELEASE, APRIL 17, 1998

COMAP, Inc., with a national panel of judges, is pleased to announce the results of the 14th Annual Mathematical Contest in Modeling (MCM). In addition, The Institute for Operations Research and Industrial and Applied Mathematics (INFORMS), the Society for Industrial and Applied Mathematics (SIAM), and the Mathematical Association of America (MAA), have each chosen one outstanding team for Problems A and B to receive its society's award.

THE FOUR OUTSTANDING WINNERS FOR PROBLEM A ARE:

Eastern Oregon University, LaGrande, OR - MAA Winner

Advisor: Norris Preyer; Team Members: Kelly Slater Cline, Timothy O'Connor, Kacee Jay Giger Harvey Mudd College, Claremont, CA

Advisor: Michael Moody; Team Members: Thaddeas Ladd, Dylan Helliwell, Jeffrey Miller **Macalester College**, *St. Paul*, *MN* – INFORMS and SIAM Winner

Advisor: Karla V. Ballman; Team Members: Nicholas Weininger, Tamas Nemeth-Csori, Paul Cantrell **Tsinghua University**, *Beijing*, *P.R. China*

Advisor: Ye Jun; Team Members: Jiang Ni, Jun Chen, Ling Li

THE THREE OUTSTANDING WINNERS FOR PROBLEM B ARE:

Duke University, Durham, NC - MAA Winner

Advisor: Greg Lawler; Team Members: Jeffrey A. Mermin, W. Garrett Mitchener, John Alexander Thacker Harvey Mudd College, *Claremont, CA* – SIAM Winner

Advisor: Michael Moody; Team Members: Aaron Archer, Andrew Hutchings, Brian Johnson **Stetson University**, *Deland*, *FL* – INFORMS Winner

Advisor: Erich Friedman; Team Members: Amanda M. Richardson, Jeff P. Fay, Matthew Galati

The 1998 MCM began at 12:01 A.M. local time on Friday, February 6 and officially ended at 5:00 P.M. local time on Monday, February 9, 1998. During that time, teams of up to three undergraduates were to research and submit an optimal solution for either of two open-ended modeling problems.

This year's Problem A required participants to design a flexible, reliable computer algorithm for use with Magnetic Resonance Imagers (MRIs). The algorithm had to produce sections of three-dimensional arrays by planes in any orientation in space, preserving the gray-scale values as closely as possible. The result of the algorithm was to be a model of the density of the scanned object over the selected plane.

Problem B dealt with college grade inflation and required participants to design data sets to test and demonstrate an algorithm that produced a fair class ranking. In addition, participants were asked to characterize data sets that limited the effectiveness of their algorithms.

COMAP's Mathematical Contest in Modeling is unique among modeling competitions: it is the only international contest in which student teams work to find a solution. COMAP's educational philosophy is centered around mathematical modeling: using mathematical tools to explore real-world problems. Founded in 1980, COMAP serves the educational community as well as the world of work by preparing students to become better informed—and prepared—citizens.

Contest Director

Frank R. Giordano, COMAP, Inc., MA Associate Directors David C. Arney, U.S. Military Academy, NY Bob Borrelli, Harvey Mudd College, CA Contest Sponsor Solomon A. Garfunkel, Executive Director, COMAP, Inc., MA

Founding Director

Bernard Fusaro, Florida State University, FL

Advisory Board

Courtney Coleman, Harvey Mudd College, CA Bernard Fusaro, Florida State University, FL Marvin S. Keener, Oklahoma State University, OK Veena Mendiratta, Bell Labs, Lucent Technology, IL Keith Miller, National Security Agency, MD Jack Robertson, Georgia College & State Univ., GA Ervin Y. Rodin, Washington University, MO Leon H. Seitelman, Pratt & Whitney, CT Maynard Thompson, Indiana University, IN



Administer ed by The Consor tium for Mathematics and its Applications



Major funding provided by the National Security Agency

Additional support provided by INFORMS, SIAM, and MAA

307 U.S. Teams	representing 186 institutions	65%
		00 /0
138 P.R. China Teams	representing 46 institutions	29%
27 Miscellaneous Teams		6%
Australia (2 teams)	1 institution	
Canada (11 teams)	6 institutions	
Finland (1 team)	1 institution	
Hong Kong (2 teams)	1 institution	
Ireland (10 teams)	4 institutions	
Lithuania (1 team)	1 institution	
189 A Entries		40%
283 B Entries		60%
7 Outstanding		1%
	4 A Outstanding	
	3 B Outstanding	
80 Meritorious		17%
	31 A Meritorious	
	48 B Meritorious	
116 Honorable Mention		25%
	47 A Honorable Mention	
	69 B Honorable Mention	
269 Successful Participant		57%
	106 A Successful Participant	
	163 B Successful Participant	
128 A year institutions		
438 4-year institutions		
15 2-year institutions		
13 High Schools		
5 Unknown		

472 teams participated (70% of the 680 registered teams), representing 246 institutions from 8 countries.