## 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, $O R$ - MAA Winner
Advisor: Norris Preyer; Team Members: Kelly Slater Cline, Timothy O’Connor, Kacee Jay Giger
Harvey Mudd College, Claremont, $C A$
Advisor: Michael Moody; Team Members: Thaddeas Ladd, Dylan Helliwell, Jeffrey Miller
Macalester College, St. Paul, $M N$ - 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.

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

| 307 U.S. Teams | representing 186 institutions | 65\% |
| :---: | :---: | :---: |
| 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 |  |
|  |  |  |
| 438 4-year institutions |  |  |
| 15 2-year institutions |  |  |
| 13 High Schools |  |  |
| 5 Unknown |  |  |

