2001 Interdisciplinary Contest in Modeling Press Release—March 21, 2001

COMAP is pleased to announce the results of the 3rd annual Interdisciplinary Contest in Modeling (ICM). This year, 83 teams representing 58 institutions from 5 countries participated in the contest. The following institutions had teams designated as this year's three OUTSTANDING WINNERS:

Lewis and Clark College, Portland, OR Humboldt State University, Arcata, CA Harvey Mudd College, Claremont, CA.

This year's contest began at 12:01 a.m. on Friday, February 9 and officially ended at 11:59 p.m. on Monday, February 12, 2001. During that time, teams of up to three undergraduate or high school students were to research and submit an optimal solution for an open-ended modeling problem. The 2001 ICM marked the inaugural year for the new on-line contest, and it was a great success. Students were able to effectively register, obtain contest materials, download the problem at the appropriate time, and enter data all through COMAP'S ICM website. This new on-line contest procedure is age and economically appropriate, and encourages a more efficient ICM for the future.

This year's zebra mussel problem proved to be particularly challenging in that it contained a large amount of data to be analyzed, had several challenging requirements needing scientific and mathematical connections, and also had the everpresent requirements to use creativity, precision, and effective communication. The author of the problem, Sandra Nierzwicki-Bauer, was one of the final graders and will write the author's commentary for COMAP's *The UMAP Journal*. All Outstanding solution papers will also be published in *The UMAP Journal*.

2001 ICM Statistics

- 171 teams registered and 83 participated (49%)
- 40 U.S. Teams (48%) from 32 institutions
- 43 Foreign Teams (52%) from Canada, Finland, Hong Kong, Ireland, and P.R. China
- 3 Outstanding Winners (4%)
- 14 Meritorious Winners (17%)
- 28 Honorable Mentions (34%)
- 38 Successful Participants (45%)
- 77 four-year institutions (93%)
- 4 two-year institutions (5%)
- 2 high schools (2%)

ICM is an extension of COMAP's Mathematical Contest in Modeling (MCM), which is held during the same weekend. ICM was designed to develop and advance interdisciplinary problem-solving skills as well as competence in written communication. The interdisciplinary problems involve concepts from mathematics, environmental science, environmental engineering, biology, and/or resource management. Each team is expected to have advisors and team members who represent a range of interests in applied problem solving.

To obtain additional information about the ICM and to obtain a complete listing of all team designations, please visit the MCM web site at: www.comap.com/undergraduate/contests/icm, or contact Clarice Callahan, Contest Coordinator, at: c.callahan@mail.comap.com.

Major funding for the ICM is provided by a grant from the National Science Foundation and COMAP. Additional support is provided by The Institute for Operations Research and the Management Sciences (INFORMS). COMAP's Mathematical Contest in Modeling and Interdisciplinary Contest in Modeling are unique among modeling competitions in that they are the only international contests in which students work in teams to find a solution. Centering its educational philosophy on mathematical modeling, COMAP uses mathematical tools to explore real-world problems. It serves the educational community as well as the world of work by preparing students to become better informed—and prepared—citizens.



Major fundingp rovided by TheN ational ScienceF oun dation Administered by
TheC onsortium for Mathematics
and its Applications

Contest Directors

Chris Arney, *College of Saint Rose, NY* John H. Grubbs, *Tulane University, LA*

Executive Director

Solomon A. Garfunkel, COMAP, Inc., MA

Associate Directors

Michael Kelley, U.S. Military Academy, NY Gary W. Krahn, U.S. Military Academy, NY

2001 Interdisplinary Contest in Modeling (ICM) Final Results Report

| Institution | | | ontrol # | Advisor | suits Report | Designation |
|---|-------------------|----|----------|----------|--------------|--|
| Harvey Mudd College | City Claremont | CA | 131 | Michael | Moody | Designation Outstanding - INFORMS |
| Humboldt State University | Arcata | CA | 128 | Eileen | Cashman | Outstanding |
| Lewis and Clark College | Portland | OR | 91 | Robert | Owens | Outstanding |
| Beijing Univ. of Posts & Telecommunications | Beijing | | 50 | Zuguo | Не | Meritorious |
| Beijing Univ. of Posts & Telecommunications | Beijing | | 51 | Zuguo | Не | Meritorious |
| Dickinson College | Carlisle | PA | 165 | Brian | Pedersen | Meritorious |
| East China University of Science & | ShangHai | | 19 | Xiwen | Lu | Meritorious |
| Harvey Mudd College | Claremont | CA | 130 | Michael | Moody | Meritorious |
| NC School of Science and Mathematics | Durham | NC | 108 | Dot | Doyle | Meritorious |
| Northwestern Polytechnical University | Xi'an | | 120 | Xiao | Yong | Meritorious |
| South China Uneversity of Technology | Guangzhou | | 54 | Не | Chunxiong | Meritorious |
| Southeast University | Nanjing | | 162 | Zhi-zhon | Sun | Meritorious |
| University College Dublin | Dublin | | 68 | Ted | Cox | Meritorious |
| University of Science and Technology of | Hefei | | 142 | Dacheng | Tao | Meritorious |
| Villa Julie College | Stevenson | M | 96 | Eileen | McGraw | Meritorious |
| Zhejiang University | Hangzhou | | 24 | Qifan | Yang | Meritorious |
| Zhejiang University | Hangzhou | | 25 | Yong | Не | Meritorious |
| Asbury College | Wilmore | KY | 145 | David | Coulliette | Honorable Mention |
| Asbury College | Wilmore | KY | 146 | David | Coulliette | Honorable Mention |
| Carroll College | Helena | MT | 141 | Kyle | Strode | Honorable Mention |
| Chongqing University | Chongqing | | 69 | Не | Renbin | Honorable Mention |
| Chongqing University | Chongqing | | 70 | Не | Renbin | Honorable Mention |
| Clarion University | Clarion | PA | 164 | Andy | Turner | Honorable Mention |
| Clatsop Community College | Astoria | OR | 103 | Michael | Vorwerk | Honorable Mention |
| Dalian University of Technology | Dalian | | 56 | Zhao | Lizhong | Honorable Mention |
| Elon College | Elon College | NC | 75 | Crista | Coles | Honorable Mention |
| Fudan University | Shanghai | | 38 | Zhijie | Cai | Honorable Mention |
| Gordon College | Wenham | M | 160 | Dorothy | Boorse | Honorable Mention |
| Hefei University of Technology | Hefei | | 65 | Huaming | Su | Honorable Mention |
| Luther College | Decorah | IA | 126 | Reginald | Laursen | Honorable Mention |
| Mathematics School of Nankai University | Math | | 71 | Fu | Lei | Honorable Mention |
| MIT | Cambridge | M | 134 | Michael | Brenner | Honorable Mention |
| Monmouth College | Monmouth | IL | 115 | Christop | Fasano | Honorable Mention |
| Päivölä College | Tarttila | | 81 | Merikki | Lappi | Honorable Mention |

2001 Interdisplinary Contest in Modeling (ICM) Final Results Report

| | | | Control # | Advisor | suits Keport | D: |
|---|-------------------|------|-----------|----------|--------------|--------------------------------------|
| Institution Roberts Wesleyan College | City Rochester | ST O | 6 | Carlos | Pereira | Designation Honorable Mention |
| South China University of Technology | Guangzhou | | 55 | Xie | Lejun | Honorable Mention |
| Southeast University | Nanjing | | 161 | Zhi-zhon | Sun | Honorable Mention |
| University College Dublin | Dublin | | 67 | Ted | Cox | Honorable Mention |
| University of Science and Technology of | Hefei | | 143 | Guangzh | Sun | Honorable Mention |
| USMA | West Point | NY | 72 | Scott | Nestler | Honorable Mention |
| USMA | West Point | NY | 73 | Michael | Jaye | Honorable Mention |
| Youngstown State University | Youngstown | ОН | 15 | Thomas | Smotzer | Honorable Mention |
| Youngstown State University | Youngstown | ОН | 16 | Scott | Martin | Honorable Mention |
| Zhongshan University | GuangZhou | | 114 | Zhuojian | Yuan | Honorable Mention |
| Zhongshang University | GuangZhou | | 94 | Mengxi | Tang | Honorable Mention |
| Anhui University | Heifei | | 43 | Wang | Hai-xian | Successful Participant |
| Austin Peay State University | Clarksville | TN | 147 | Nell | Rayburn | Successful Participant |
| Beijing University of Aeronautics & | Beijing | | 140 | Guiping | Lin | Successful Participant |
| Chesterfield County Math & Science H.S. | Midlothian | VA | 4 | Diane | Leighty | Successful Participant |
| Colorado Northwestern Community College | Rangely | CO | 63 | Richard | Knaub | Successful Participant |
| Colorado Northwestern Community College | Rangely | CO | 64 | Richard | Knaub | Successful Participant |
| East China University of Science & | ShangHai | | 20 | Yuanhon | Lu | Successful Participant |
| Eastern Oregon University | La Grande | OR | 167 | Richard | Hermens | Successful Participant |
| Elon College | Elon College | NC | 76 | Crista | Coles | Successful Participant |
| Florida A&M University | Tallahassee | FL | 149 | Bruno | Guerrieri | Successful Participant |
| Fudan University | Shanghai | | 37 | Zhijie | Cai | Successful Participant |
| Harbin Institute of Technology | Harbin | | 10 | Shouting | Shang | Successful Participant |
| Harbin Institute of Technology | Harbin | | 11 | Shouting | Shang | Successful Participant |
| Hefei University of Technology | Hefei | | 66 | Huaming | Su | Successful Participant |
| Hong Kong Baptist University | Kowloon | | 8 | Chong | Tong | Successful Participant |
| Macalester College | St. Paul | M | 99 | Peter | Vaughan | Successful Participant |
| Mount Marty College | Yankton | SD | 47 | Bonita | Gacnik | Successful Participant |
| Mount Marty College | Yankton | SD | 48 | Bonita | Gaenik | Successful Participant |
| Northeastern University | Shenyang | | 53 | Dingyu | Xue | Successful Participant |
| Northwestern Polytechnical University | Xi'an | | 133 | Nie | Feng | Successful Participant |
| Päivölä College | Tarttila | | 80 | Merikki | Lappi | Successful Participant |
| Peking University | Beijing | | 13 | Ping | Ma | Successful Participant |
| Rogue Community College | Grants Pass | OR | 166 | John | Salinas | Successful Participant |

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| Institution | City | ST | Control # | Advisor | | Designation |
|---|-----------|----|-----------|----------|-----------|------------------------|
| Rowan University | Glassboro | NJ | 116 | Hieu | Nguyen | Successful Participant |
| School of Mathematical Sciences, Peking | Beijing | | 2 | Tao | Zhang | Successful Participant |
| Shanghai Jiaotong University | Shanghai | | 121 | Peimin | Gong | Successful Participant |
| Shanghai Jiaotong University | Shanghai | | 122 | Peimin | Gong | Successful Participant |
| Sierra Nevada College | Incline | NV | 169 | Steven | Ellsworth | Successful Participant |
| Simpson College | Indianola | IA | 32 | Steve | Emerman | Successful Participant |
| SUNY Geneseo | Geneseo | NY | 62 | Christop | Leary | Successful Participant |
| The Experimental High School Of Beijing | Beijing | | 45 | Jiangci | Wang | Successful Participant |
| University of Central Oklahoma | Edmond | OK | 119 | Jesse | Byrne | Successful Participant |
| University of Saskatchewan | Saskatoon | | 31 | Tom | Steele | Successful Participant |
| University of Southern Colorado | Pueblo | CO | 79 | Bruce | Lundberg | Successful Participant |
| Villa Julie College | Stevenson | M | 95 | Eileen | McGraw | Successful Participant |
| Xi'an Jiaotong University | Xi'an | | 34 | Не | Xiaoliang | Successful Participant |
| Xi'an Jiaotong University | Xi'an | | 35 | Не | Xiaoliang | Successful Participant |
| Xi'an Universty of Technology | Xi'an | | 137 | Xie | Long | Successful Participant |