

## 2006 Interdisciplinary Contest in Modeling Press Release—March 20, 2006

COMAP is pleased to announce the results of the 8th annual Interdisciplinary Contest in Modeling (ICM). This year, 224 teams representing institutions from six countries participated in the contest. 4 teams from the following three institutions were designated as OUTSTANDING WINNERS:

**Duke University, Durham, NC (2 Teams) INFORMS Prize**  
**Harvey Mudd College, Claremont, CA**  
**United States Military Academy, West Point, NY**

This year's contest ran from Thursday, February 2 to Monday, February 6, 2006. During that time, teams of up to three undergraduate or high school students researched, analyzed, modeled, and communicated a solution to an open-ended interdisciplinary modeling problem. The 2006 ICM was primarily an online contest, where teams registered, obtained contest materials, and downloaded the problem statement and data at the prescribed time through COMAP's ICM Website.

This year's public health problem was particularly challenging. It required teams to understand the science of the HIV virus and understand and model the financial and policy issues associated with controlling the pandemic. The problem contained issues such as economic, demographic, political, environmental, social, psychological, geographic, and science, had several challenging requirements needing scientific and mathematical modeling and analysis, and also had the ever-present requirements in the ICM to use thorough data analysis, creativity, approximation, precision, and effective

communication. The author of the problem was Heide Williams Ph.D. student in Economics at Harvard University, who served on the panel of final judges. The problem originated from her study and research in funding for child vaccinations. The four outstanding solution papers will be published in *The UMAP Journal*, along with commentaries from the problem author and judges. All the members of the 224 competing teams are to be congratulated for their excellent work and enthusiasm for scientific and mathematical modeling and interdisciplinary problem solving. This year's judges remarked that despite the challenging problem, the quality of the modeling, analysis, and presentation was extremely high and the award levels reflected this increase in quality.

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### 2005 ICM Statistics

- 224 teams participated
  - 3 high school teams (%)
  - 26 U.S. Teams (13%)
  - 198 Foreign Teams (87%) from Ireland, Finland, Indonesia, Hong Kong, and P.R. China.
  - 4 Outstanding Winners (2%)
  - 48 Meritorious Winners (21%)
  - 113 Honorable Mentions (51%)
  - 59 Successful Participants (26%)
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ICM is an extension of COMAP's Mathematical Contest in Modeling (MCM), which is held during the same weekend. ICM is designed to develop and advance interdisciplinary problem-solving skills as well as competence in written communication. The first four interdisciplinary problems involved concepts from environmental science, environmental engineering, biology, chemistry, and/or resource management. The next three ICM problems involved operations research, information science, environmental science, and interdisciplinary issues in security and safety. This is the first of the series contest problems involving public health. Each team is expected to have advisors and team members who represent a range of disciplinary interests in applied problem solving and modeling. Next year, the ICM problem will continue to involve modeling in the area of public health.

To obtain additional information about the ICM and to obtain a complete listing of all team designations, please visit the ICM website at: [www.comap.com/undergraduate/contests/icm](http://www.comap.com/undergraduate/contests/icm), or contact COMAP at: [icm@comap.com](mailto:icm@comap.com)

*Major start-up funding for the ICM was provided by COMAP. Additional support is provided by The Institute for Operations Research and the Management Sciences (INFORMS, Two Sigma Investment, and IBM. 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, consumers, workers, and community leaders.*



Administered by  
The Consortium for Mathematics  
and Its Applications

#### Contest Directors

Chris Arney, *U. S. Army Research Office, NC*  
Gary Krahn, *United States Military Academy, NY*

#### Executive Director

Solomon A. Garfunkel, *COMAP, Inc., MA*

#### Associate Directors

Richard Cassady, *University of Arkansas*  
Joseph Myers, *United States Military Academy, NY*

**2006 ICM Contest Results**

<b>Control #</b>	<b>Institution</b>	<b>Advisor</b>	<b>Designation</b>	<b>Problem</b>
<b>605</b>	United States Military Academy	Randal Hickman	Outstanding Winner	<b>C</b>
<b>787</b>	Duke University	David Kraines	Outstanding Winner	INFORMS Award <b>C</b>
<b>788</b>	Duke University	David Kraines	Outstanding Winner	<b>C</b>
<b>822</b>	Harvey Mudd College	Lisette dePillis	Outstanding Winner	<b>C</b>
<b>35</b>	Fudan University	Zhijie Cai	Meritorious Winner	<b>C</b>
<b>45</b>	Harbin Institute of Technology Science Faculty	Jiao Guanghong	Meritorious Winner	<b>C</b>
<b>81</b>	Science College,Southeast University	He Dan	Meritorious Winner	<b>C</b>
<b>86</b>	Zhejiang University	Zhiyi Tan	Meritorious Winner	<b>C</b>
<b>88</b>	Zhejaing University	Jiaer Fei	Meritorious Winner	<b>C</b>
<b>89</b>	Zhejaing University	Jiaer Fei	Meritorious Winner	<b>C</b>
<b>113</b>	Nanjing University of Posts and	Zhonghua Qiu	Meritorious Winner	<b>C</b>
<b>118</b>	Nanjing University of Posts and	Ming He	Meritorious Winner	<b>C</b>
<b>157</b>	School of Mathematics and System Sciences	Shuxiang Huang	Meritorious Winner	<b>C</b>
<b>178</b>	Shandong University at Weihai	Zhulou Cao	Meritorious Winner	<b>C</b>
<b>188</b>	East China University of Science and Technology	Zhongxin Ni	Meritorious Winner	<b>C</b>
<b>189</b>	School of Science, East China University of	Xiwen Lu	Meritorious Winner	<b>C</b>
<b>208</b>	Tsinghua University	Mei Lu	Meritorious Winner	<b>C</b>
<b>212</b>	Tsinghua University	Jinxing Xie	Meritorious Winner	<b>C</b>
<b>218</b>	BEIHANG UNIVERSITY	liu hongying	Meritorious Winner	<b>C</b>
<b>232</b>	Shandong University	Shuxiang Huang	Meritorious Winner	<b>C</b>
<b>264</b>	Institute of University Students' Innovation	Donghai Fu	Meritorious Winner	<b>C</b>
<b>269</b>	Xidian University	Shuisheng Zhou	Meritorious Winner	<b>C</b>
<b>271</b>	Xidian University	Xiaogang Qi	Meritorious Winner	<b>C</b>
<b>306</b>	Nonlinear Science Center	Tao Zhou	Meritorious Winner	<b>C</b>
<b>322</b>	Beijing Jiao Tong University	Guiting Li	Meritorious Winner	<b>C</b>
<b>339</b>	School of Science,Beijing Jiao Tong University	Shangli Zhang	Meritorious Winner	<b>C</b>
<b>347</b>	School of Computer and Information	Bingli Fan	Meritorious Winner	<b>C</b>
<b>397</b>	Zhejiang University City College	Gui Wang	Meritorious Winner	<b>C</b>
<b>437</b>	Central University of Finance and Economics	Donghong Li	Meritorious Winner	<b>C</b>
<b>450</b>	Beijing University of Posts and	Jianhua Yuan	Meritorious Winner	<b>C</b>
<b>467</b>	Jinan University	Daiqiang Hu	Meritorious Winner	<b>C</b>
<b>468</b>	Jinan University	Suohai Fan	Meritorious Winner	<b>C</b>
<b>493</b>	Beijing University of Chemical Technology	Yan Cheng	Meritorious Winner	<b>C</b>
<b>497</b>	Science College, National University of Defense	Ziyang Mao	Meritorious Winner	<b>C</b>

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511	School of Humanity and Management, National	Mengda Wu	Meritorious Winner	C
523	Hangzhou Dianzi University	Hao Shen	Meritorious Winner	C
579	Harbin Engineering University	Yuesheng Luo	Meritorious Winner	C
584	harbin engineering university	zhaobing fan	Meritorious Winner	C
596	Sun Yat_sen University	ZePeng Chen	Meritorious Winner	C
730	University of Colorado	Anne Dougherty	Meritorious Winner	C
735	Peking University Health Science Center	Zhang Xia	Meritorious Winner	C
736	China University of Mining and Technology	Zhou Shengwu	Meritorious Winner	C
741	Chongqing University	Qu Gong	Meritorious Winner	C
750	Chongqing University	Zhiliang Li	Meritorious Winner	C
798	Dalian University	Xinxin Tan	Meritorious Winner	C
828	Duke University	William Allard	Meritorious Winner	C
842	University of Colorado at Colorado Springs	Radu Cascaval	Meritorious Winner	C
867	University College Cork	Ben McKay	Meritorious Winner	C
895	Carroll College	Holly Zullo	Meritorious Winner	C
896	Maggie L. Walker Governor's School	John Barnes	Meritorious Winner	C
897	Maggie L. Walker Governor's School	John Barnes	Meritorious Winner	C
936	Beijing University of Posts and	Zuguo He	Meritorious Winner	C
6	Tsinghua University	ChongEn Bai	Honorable Mention	C
11	School of Phys. and MEE,Xiamen University	Chenxu Wu	Honorable Mention	C
18	Southeast University	wang feng	Honorable Mention	C
27	Ningbo Institute of Technology, Zhejiang	Zhening Li	Honorable Mention	C
28	Ningbo Institute of Technology, Zhejiang	Jufeng Wang	Honorable Mention	C
30	Ningbo Institute of Technology, Zhejiang	Lihui Tu	Honorable Mention	C
37	Harbin Institute of Technology	Shouting Shang	Honorable Mention	C
40	Harbin Institute of Technology	Ge Hong	Honorable Mention	C
43	Harbin Institute of Technology Science Faculty	Zhang Chiping	Honorable Mention	C
65	Science College,Southeast University	He Dan	Honorable Mention	C
66	Shandong University	Junfeng Luan	Honorable Mention	C
73	Peking Univeristy	Minghua Deng	Honorable Mention	C
95	Northwestern Polytechnical University	Xiao Huayong	Honorable Mention	C
107	Harbin Institute of Technology	Shang Shouting	Honorable Mention	C
111	Harbin Institute of Technology	Zheng Tong	Honorable Mention	C
116	Nanjing University of Posts and	LiWei Xu	Honorable Mention	C

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125	Economics and Management College of Dalian	Yun Zhang	Honorable Mention	C
127	Dalian Maritime University	Yunjie Zhang	Honorable Mention	C
128	Huazhong University of Science and Technology	Liang Gao	Honorable Mention	C
130	Computer Science and Technology College of	Shuqin Yang	Honorable Mention	C
165	University of Electronic Science and Technology of	Du Hongfei	Honorable Mention	C
167	University of Electronic Science and Technology of	Zhang Yong	Honorable Mention	C
191	Northwestern Polytechnical University	Xiao Huayong	Honorable Mention	C
195	Shandong University	Guohua Fu	Honorable Mention	C
198	Shandong University	Baodong Liu	Honorable Mention	C
209	Tsinghua University	Mei Lu	Honorable Mention	C
210	School of Mathematical Sciences, Peking	Lan Wu	Honorable Mention	C
216	Peking University	Yulong Liu	Honorable Mention	C
217	Peking University	Liangzhu Mu	Honorable Mention	C
233	Hebei University of Technology	Changqing Xu	Honorable Mention	C
249	Institute of University Students' Innovation	Qihui Pan	Honorable Mention	C
251	Institute of Uiversity Students' Innovation	Yuxing Li	Honorable Mention	C
254	Dalian University of Technology	Wanji Dai	Honorable Mention	C
287	Xi'an Jiaotong University	Shibin Fu	Honorable Mention	C
288	Xi'an Jiaotong University	Shibin Fu	Honorable Mention	C
297	Dalian Nationalities University	Hengbo Zhang	Honorable Mention	C
302	Dalian Nationalities Innovation College	Jie Fu	Honorable Mention	C
303	Dalian Nationalities Innovation College	Jie Fu	Honorable Mention	C
308	Beijing Language and Culture University	Guilong Liu	Honorable Mention	C
309	Beijing Language and Culture University	Guilong Liu	Honorable Mention	C
321	Beijing Jiao Tong University	Xiaoxia Wang	Honorable Mention	C
323	Beijing Jiao Tong University	Guiting Li	Honorable Mention	C
326	University of Science and Technology of China	Fu LI	Honorable Mention	C
359	Zhejiang Sci-Tech University	Guosheng Shi	Honorable Mention	C
365	Jilin University	Xianrui Lv	Honorable Mention	C
372	University of Science and Technology of China	Manjun Zhang	Honorable Mention	C
375	School of Mathematics and System	Baodong Liu	Honorable Mention	C
388	China University of Geosciences (Beijing)	Zhaodou Chen	Honorable Mention	C
389	Nankai University	Wenhua Hou	Honorable Mention	C
393	Zhejiang University City College	Xusheng Kang	Honorable Mention	C

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396	North China Eletric Power University	Hongshan Zhao	Honorable Mention	C
399	Zhejiang University City College	Huizeng Zhang	Honorable Mention	C
400	China University of Geosciences (Beijing)	Zhaodou Chen	Honorable Mention	C
404	School of Science, Beijing University of Posts and	Zuguo He	Honorable Mention	C
410	Computer Science and Technology, Shandong	Xiaoxia Rong	Honorable Mention	C
422	Donghua University	Yong Li	Honorable Mention	C
424	Donghua University	Yufang Ma	Honorable Mention	C
425	Jilin University	Chunling Cao	Honorable Mention	C
427	Jilin University	Chunling Cao	Honorable Mention	C
429	School of Communication Engineering ,Jilin	Xiuling Yao	Honorable Mention	C
433	Harbin University of Science and Technology	Dongmei Li	Honorable Mention	C
435	Harbin University of Science and Technology	Shuzhong Wang	Honorable Mention	C
439	Central University of Finance and Economics	Xiaoming Fan	Honorable Mention	C
441	Central University of Finance and Economics	Xianjun Yin	Honorable Mention	C
448	Beijing University of Posts and	Wenbo Zhang	Honorable Mention	C
474	Jinan University	Shizhuang Luo	Honorable Mention	C
475	Shandong University	Haodi Feng	Honorable Mention	C
494	Beijing University of Chemical Technology	Xinhua Jiang	Honorable Mention	C
509	School of Humanity and Management, National	Xiaojun Duan	Honorable Mention	C
515	Xiamen University	Shengrui Wang	Honorable Mention	C
516	Xiamen University	Shengrui Wang	Honorable Mention	C
524	Hangzhou Dianzi University	Hao Shen	Honorable Mention	C
525	Hangzhou Dianzi University	Chengjia Li	Honorable Mention	C
537	Zhejiang University of Technology	Xuejun Wu	Honorable Mention	C
538	Zhejiang University of Technology	Xuejun Wu	Honorable Mention	C
539	Zhejiang University of Technology	Wenxin Zhuo	Honorable Mention	C
540	Northeast Agricultural University	Fangge Li	Honorable Mention	C
542	Northeast Agricultural University	Fangge Li	Honorable Mention	C
543	Xiamen university	Songyue Liu	Honorable Mention	C
569	Hefei University of Technology	Youdu Huang	Honorable Mention	C
578	Hefei University of Technology	Xueqiao Du	Honorable Mention	C
593	Sun Yat_sen University	ZhuJun Fan	Honorable Mention	C
620	Hunan University	Huahui Yan	Honorable Mention	C
622	Hunan University	Xiaopei Li	Honorable Mention	C

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635	Nanjing Univ. of Sci. & Tech.	Zhengjun Zhang	Honorable Mention	C
639	Nanjing Univ. of Sci. & Tech.	Zhengyou Huang	Honorable Mention	C
646	Zhejiang Gongshang University	Zhu Ling	Honorable Mention	C
647	Zhejiang Gongshang University	Zhu Ling	Honorable Mention	C
654	Minhang Branch of Shanghai Jiaotong University	Liuqing Xiao	Honorable Mention	C
655	Minhang Branch of Shanghai Jiaotong University	Liuqing Xiao	Honorable Mention	C
682	School of Science,Beijing Institute of Technology	Huafei Sun	Honorable Mention	C
685	Beijing Institute of Technology	Bingzhao Li	Honorable Mention	C
688	South China University of Technology	Tao Zhi Sui	Honorable Mention	C
694	School of Science,Beijing Institute of Technology	Yuan Li	Honorable Mention	C
712	Tianjin University	Guoliang Shi	Honorable Mention	C
748	Xuzhou Institute of Technology	Jiang Yingzi	Honorable Mention	C
749	Chongqing University	Zhiliang Li	Honorable Mention	C
759	China University of Mining and Technology	Zhu Kaiyong	Honorable Mention	C
790	James Madison University	Hasan Hamdan	Honorable Mention	C
810	Franklin W. Olin College of Engineering	Burt Tilley	Honorable Mention	C
821	Harvey Mudd College	Lisette dePillis	Honorable Mention	C
852	Dalian University	Xiangyu Dong	Honorable Mention	C
853	Dalian University	Lianshan Shen	Honorable Mention	C
889	Carroll College	Kelly Cline	Honorable Mention	C
901	Maggie L. Walker Governor's School	John Barnes	Honorable Mention	C
905	Villa Julie College	Eileen McGraw	Honorable Mention	C
907	Youngstown State University	George Yates	Honorable Mention	C
908	Youngstown State University	George Yates	Honorable Mention	C
909	Youngstown State University	Jay Kerns	Honorable Mention	C
932	Institut teknologi bandung	Edy Soewono	Honorable Mention	C
942	Shenyang Institute of Aeronautical	Zhu Limei	Honorable Mention	C
974	Asbury College	Kenneth Rietz	Honorable Mention	C
988	James Madison University	David Walton	Honorable Mention	C
15	Southeast University	wang feng	Successful Participant	C
36	Fudan University	Yuan Cao	Successful Participant	C
42	Harbin Institute of Technology	Liu Kean	Successful Participant	C
97	Northwestern Polytechnical University	Lv Quanyi	Successful Participant	C
131	Computer Science and Technology College of	Shuqin Yang	Successful Participant	C

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133	Dalian Maritime University	Guoyan Chen	Successful Participant	C
164	University of Electronic Science and Technology of	Du Hongfei	Successful Participant	C
168	BeiHang Univ.(BHU)	Sun HaiYan	Successful Participant	C
187	East China University of Science and Technology	Xiyuan Qian	Successful Participant	C
190	School of Science, East China University of	Xiwen Lu	Successful Participant	C
228	Anhui University	Huayou Chen	Successful Participant	C
241	Anhui University	Ligang Zhou	Successful Participant	C
248	Institute of University Students' Innovation	Qihui Pan	Successful Participant	C
250	Institute of Uiversity Students' Innovation	Yuxing Li	Successful Participant	C
267	Xidian University	Xuewen Mu	Successful Participant	C
281	China University of Geosciences	Xunye Zheng	Successful Participant	C
289	Xi'an Jiaotong University	Yicang Zhou	Successful Participant	C
291	Beijing University of Technology	En Guo	Successful Participant	C
294	Dalian Nationalities University	Xiangdong Liu	Successful Participant	C
296	Dalian Nationalities Innovation College	Qiang Guo	Successful Participant	C
299	Dalian Nationalities University	Rendong Ge	Successful Participant	C
316	Beijing Language and Culture University	Rou Song	Successful Participant	C
331	South-China Normal University	Liu xiuxiang	Successful Participant	C
332	South-China Normal University	Liu xiuxiang	Successful Participant	C
336	University of Science and Technology of China	Yanjun Liu	Successful Participant	C
337	School of Science,Beijing Jiao Tong University	Guochen Feng	Successful Participant	C
338	School of Science,Beijing Jiao Tong University	Guochen Feng	Successful Participant	C
341	School of Electronics and Information	Bingtuan Wang	Successful Participant	C
343	School of Electronics and Information	Bingtuan Wang	Successful Participant	C
344	School of Electronics and Information	Jiixin Yu	Successful Participant	C
348	School of Computer and Information	Pengjian Shang	Successful Participant	C
350	School of Computer and Information	Pengjian Shang	Successful Participant	C
355	Guizhou University for Nationalities	Yingfu Tian	Successful Participant	C
423	Donghua University	Mingyou Ying	Successful Participant	C
431	Harbin University of Science and Technology	Dongyan Chen	Successful Participant	C
445	School of Science,Beijing University of Posts and	Jinkou Ding	Successful Participant	C
457	School of Chemistry USTC	Fu LI	Successful Participant	C
492	Beijing University of Chemical Technology	Wenyan Yuan	Successful Participant	C
563	Hefei University of Technology	Huaming Su	Successful Participant	C

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572	Hong Kong Baptist University	M. L. Tang	Successful Participant	C
591	Inner Mongolia University	hai han	Successful Participant	C
595	Sun Yat-sen University	Qi-Ru Wang	Successful Participant	C
616	Hunan University	Han Luo	Successful Participant	C
637	Nanjing Univ. of Sci. & Tech.	Chungen Xu	Successful Participant	C
648	Zhejiang Gongshang University	Zhao Heng	Successful Participant	C
692	South China University of Technology	Liu Xiao Lan	Successful Participant	C
696	South China University of Technology	Pan Shao Hua	Successful Participant	C
714	Tianjin University	Zhenghai Huang	Successful Participant	C
733	Peking University Health Science Center	Zhang Xia	Successful Participant	C
734	Peking University Health Science Center	Zhang Xia	Successful Participant	C
793	Longwood University	M. Leigh Lunsford	Successful Participant	C
823	Harvey Mudd College	Darryl Yong	Successful Participant	C
846	California State University at Monterey Bay	Hongde Hu	Successful Participant	C
855	Institution of Information and Engineering , Dalian	Zixin Liu	Successful Participant	C
886	Carroll College	Kelly Cline	Successful Participant	C
935	Institut Teknologi Bandung	Kuntjoro Sidarto	Successful Participant	C
940	Shenyang Institute of Aeronautical	Shan Feng	Successful Participant	C
963	Helsingin matematiikkalukio	Juho Pakarinen	Successful Participant	C
972	Asbury College	Kenneth Rietz	Successful Participant	C