2004 Mathematical Contest in Modeling Press Release—March 22, 2004

COMAP is pleased to announce the results of the 20th annual Mathematical Contest in Modeling (MCM). This year, 599 teams representing institutions from 11 countries participated in the contest. Seven teams from the following six institutions were designated as OUTSTANDING:

Harvard University, Cambridge, MA
Harvey Mudd College, Claremont, CA
Merton College, Oxford University, Oxford UK
University College Cork, Cork, Ireland
University of Colorado at Boulder, Boulder, CO (2 Teams)
University of Washington, Seattle, WA

This year's contest ran from Thursday, February 5 to Monday, February 9, 2004. During that time, teams of up to three undergraduate or high school students researched, modeled, and submitted a solution to one of two modeling problems. The 2004 MCM was primarily an online contest. Teams registered, obtained contest materials, and downloaded the problem and data at the prescribed time through COMAP's MCM Website.

This year, the two MCM problems were particularly challenging. **Problem A** asked teams to develop a model to address the issue of the uniqueness of human thumbprints. **Problem B** asked teams to propose and test schemes for a QuickPass system in an amusement park that allowed

customers to decrease their time spent waiting in line for the park rides. The seven **Outstanding** solution papers will be published in *The UMAP Journal*, along with commentary from the authors and other judges. All 599 of the competing teams are to be congratulated for their excellent work and enthusiasm for mathematical modeling and interdisciplinary problem solving. This year's judges remarked that the quality of the modeling and presentation in the papers was extremely high, making it difficult to select just seven Outstanding papers.

2004 MCM Statistics

- 599 teams participated
- 12 high school teams (2%)
- 267 U.S. Teams (44%)
- 332 Foreign Teams (56%) from Australia, Canada, England, Finland, Germany, Hong Kong, Indonesia, Ireland, China, South Africa
- 7 Outstanding Winners (1%)
- 61 Meritorious Winners (10%)
- 159 Honorable Mentions (27%)
- 372 Successful Participants (62%)

To obtain additional information about the MCM and to obtain a complete listing of all team designations, please visit the MCM Website at: www.comap.com/undergraduate/contests/mcm, or contact COMAP at: mcm@comap.com.

Major funding for the MCM is provided by a grant from the National Security Agency and support from 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, consumers, and workers.

Contest Director

Frank Giordano, Naval Postgraduate School, Monterey CA.

Executive Director

Solomon A. Garfunkel, COMAP, Inc., MA

Founding Director

Ben Fusaro, Florida State University

Associate Directors

William Fox, Francis Marion University, SC Bob Borrelli, Harvey Mudd College, CA Pat Driscoll, USMA, West Point, NY





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Co	ntrol # Institution	Advisor	Designation		Problem
21	University of Washington	James Morrow	Outstanding Winner		В
291	Harvard University	Clifford Taubes	Outstanding Winner	MAA Award	В
380	University of Colorado at Boulder	Anne Dougherty	Outstanding Winner	MAA Award	Α
381	University of Colorado at Boulder	Bengt Fornberg	Outstanding Winner	SIAM Award	В
602	Merton College, Oxford University	Ulrike Tillmann	Outstanding Winner	INFORMS Award	В
674	Harvey Mudd College	Jon Jacobsen	Outstanding Winner	SIAM Award	Α
674	Harvey Mudd College	Jon Jacobsen	Outstanding Winner	INFORMS Award	Α
752	University College Cork	James Grannell	Outstanding Winner	INFORMS Award	A
19	Northwestern Politechnical University	Peng Guohua	Meritorious Winner		Α
22	University of Washington	James Morrow	Meritorious Winner		В
 26	Beijing Forestry University	Mengning Gao	Meritorious Winner		В
28	University of Washington	Rekha Thomas	Meritorious Winner		A
	Civil Aviation University of China	Runtu Nie	Meritorious Winner		В
	Zhejiang University	Yong He	Meritorious Winner		A
	University of Massachusetts Lowell	rong ⊓e James Graham-Eagle	Meritorious Winner		В
	Donghua University	ŭ	Meritorious Winner		A
	Dalian University	Yongsheng Ding Xinxin Tan	Meritorious Winner		A
	Concordia College New York		Meritorious Winner		В
	Nankai University	John Loase	Meritorious Winner		В
	Kansas State University	Qingzhi Yang	Meritorious Winner		A
	-	Fosskorten Auckly			
	Kansas State University	Fosskorten Auckly	Meritorious Winner		В
	Loyola College	Christos Xenophontos	Meritorious Winner		В
	Dalian University of Technology	Mingfeng He	Meritorious Winner		Α
	Central Washington University	Stuart Boersma	Meritorious Winner	Ben Fusaro Award	
	Wartburg College	Brian Birgen	Meritorious Winner		В
	Harbin Institute of Technology Science	Kean Liu	Meritorious Winner		В
	Harbin Institute of Technology Science	Kean Liu	Meritorious Winner		В
	Chongqing University	Li Zhiliang	Meritorious Winner		Α
	Tsinghua University	Zhiming Hu	Meritorious Winner		Α
	Gettysburg College	Peter Otto	Meritorious Winner		Α
	Luther College	Reginald Laursen	Meritorious Winner		Α
400	Olin College of Engineering	Burt Tilley	Meritorious Winner		Α
411	Wake Forest University	Miaohua Jiang	Meritorious Winner		В
412	Wake Forest University	Miaohua Jiang	Meritorious Winner		В
425	United States Military Academy	J. Scott Billie	Meritorious Winner		В
432	Wake Forest University	Robert Plemmons	Meritorious Winner		В
449	Bloomsburg University	Kevin Ferland	Meritorious Winner		В
455	The College of Wooster	Charles Hampton	Meritorious Winner		В
462	University of Saskatchewan	James Brooke	Meritorious Winner		В
470	Colorado College	Jane McDougall	Meritorious Winner		В
473	Grand View College	Sergio Loch	Meritorious Winner		В
485	Bethel College	William Kinney	Meritorious Winner		Α
486	Univ California Berkeley	Lawrence Evans	Meritorious Winner		В
	North China Electric Power University`	Shi HuiFeng	Meritorious Winner		В
	Shanghai Jiaotong University	Baorui Song	Meritorious Winner		В
	Shanghai Jiaotong University	Baorui Song	Meritorious Winner		В
	Shanghai Jiaotong University	Jianguo Huang	Meritorious Winner		Α
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Co	ntrol# Institution	Advisor	Designation	Problem
522	University of Pittsburgh	Jonathan Rubin	Meritorious Winner	В
581	Carroll College	Marilyn Schendel	Meritorious Winner	В
583	Duke University	William Mitchener	Meritorious Winner	В
584	Duke University	William Mitchener	Meritorious Winner	Α
591	Southeast Missouri State University	Robert Sheets	Meritorious Winner	В
598	University of South Carolina Aiken	Thomas Reid	Meritorious Winner	Α
612	Simpson College	Murphy Waggoner	Meritorious Winner	Α
615	Simpson College	Werner Kolln	Meritorious Winner	В
627	University of Trier	Volker Schulz	Meritorious Winner	В
35	University of Delaware	Louis Rossi	Meritorious Winner	Α
659	Greenville College	George Peters	Meritorious Winner	В
669	Harvey Mudd College	Ran Libeskind-Hadas	Meritorious Winner	В
709	MIT	Martin Bazant	Meritorious Winner Ben Fusaro Aware	d B
713	Rensselaer Polytechnic Institute	Peter Kramer	Meritorious Winner	Α
714	Rensselaer Polytechnic Institute	Peter Kramer	Meritorious Winner	В
715	Cornell University	Alexander Vladimirsky	Meritorious Winner	Α
719	Nanjing University of Science & Technology	Peibiao Zhao	Meritorious Winner	В
748	Davidson College	Dennis Appleyard	Meritorious Winner	В
749	University College Cork	Patrick Fitzpatrick	Meritorious Winner	В
750	University College Cork	James Grannell	Meritorious Winner	Α
757	MIT	Martin Bazant	Meritorious Winner	Α
765	Salisbury University	Joseph Howard	Meritorious Winner	В
4	South Dakota School of Mines & Technology	Kyle Riley	Honorable Mention	В
6	Huazhong University of Sci. & Tech.	Wang Yizhi	Honorable Mention	Α
12	State University of West Georgia	Scott Gordon	Honorable Mention	Α
14	Beijing Normal University	Laifu Liu	Honorable Mention	В
23	Northwestern Polytechnical University	Xiaodong Liu	Honorable Mention	В
34	Shanghai University of Finance&Economics	Fan Zhang	Honorable Mention	В
44	Huazhong Univ of Science and Technology	Ying Ye	Honorable Mention	Α
45	Nonlinear Inst Center of Jiang Su University	Yi Li	Honorable Mention	В
53	Dalian Nationalities University	Hengbo Zhang	Honorable Mention	В
58	Beijing University of Technology	Enli Guo	Honorable Mention	В
59	Truman State University	Steve Smith	Honorable Mention	Α
60	Truman State University	Steve Smith	Honorable Mention	В
63	Southeast University	Zhi-qiang Zhang	Honorable Mention	В
66	Southeast University	Dan He	Honorable Mention	В
70	University of Dayton	Youssef Raffoul	Honorable Mention	Α
87	Sun Yat-Sen University	ZhuoJian Yuan	Honorable Mention	В
101	Peking Univ,School of Math & Sciences	Xufeng Liu	Honorable Mention	В
102	Peking Univ,School of Math & Sciences	Xufeng Liu	Honorable Mention	Α
103	Peking Univ,School of Math &Sciences	Minghua Deng	Honorable Mention	Α
104	Peking Univ,School of Math &Sciences	Minghua Deng	Honorable Mention	Α
113	Jiading No.1 Senior High School	Rong Xu	Honorable Mention	В
117	East China University of Science and Tech	Lu Yuanhong	Honorable Mention	Α
122	Hong Kong Baptist University	Chong Sze Tong	Honorable Mention	Α
123	Hong Kong Baptist University	Wai Chee Shiu	Honorable Mention	В
124	Tianjin Normal University	Jianquan Li	Honorable Mention	В
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Co	ontrol # Instituti	on	Advisor	Designation	Problem
125	Tianjin Normal unive	rsity	Baoyi Li	Honorable Mention	В
130	Xidian University		Zhang Zhuokui	Honorable Mention	Α
134	Beijing Univ of Posts	&Telecommunication	is Zuguo He	Honorable Mention	Α
136	Beijing Univ of Posts	&Telecommunication	s Hongxiang Sun	Honorable Mention	Α
138	Beijing Univ of Posts	&Telecommunication	ns Jinkou Ding	Honorable Mention	В
143	Univ. of Elec. Sci. & 1	Tech.	Gao Qing	Honorable Mention	В
148	Xi'an Jiaotong Univer	rsity	Yicang Zhou	Honorable Mention	В
149	Xi'an Jiaotong Univer	rsity	Yicang Zhou	Honorable Mention	В
154	Heritage College		Richard Swearingen	Honorable Mention	В
163	Beijing Institute of Te	chnology	Li Bingzhao	Honorable Mention	В
166	Beijing Institute of Te	echnology	Cui Xiaodi	Honorable Mention	Α
170	South-China Normal	University wa	anghg2002@x263.net Henggeng	Honorable Mention	Α
171	South-China Normal	University wa	anghg2002@x263.net Henggeng	Honorable Mention	Α
172	South-China Normal	University	Liu Xiuxiang	Honorable Mention	Α
180	Zhejiang University		Zhiyi Tan	Honorable Mention	Α
183	University College Du	ublin	Maria Meehan	Honorable Mention	В
190	University of Stellenb	osch	Jan van Vuuren	Honorable Mention	Α
191	University of Stellenb	osch	Jan van Vuuren	Honorable Mention	Α
201	Donghua University		Jingchao Chen	Honorable Mention	Α
213	Tianjin University		Fengling Zhang	Honorable Mention	Α
215	Tianjin University		Fengzhen Liang	Honorable Mention	Α
217	Tianjin University		Zhanjie Song	Honorable Mention	В
218	Tianjin University		Dan Lin	Honorable Mention	В
219	Shanghai Foreign La	nguage School	Lieda Chen	Honorable Mention	В
220	Concordia College No	ew York	John Loase	Honorable Mention	В
231	Science College, Nati	ional Univ of Defence	Mengda Wu	Honorable Mention	В
232	School of Humanity a	and Management	Lizhi Cheng	Honorable Mention	Α
236	Nankai University		Wanyi Chen	Honorable Mention	В
239	Central South Univer	sity	Kunnan Yi	Honorable Mention	В
244	Beijing Forestry Univ	ersity	Mengning Gao	Honorable Mention	В
252	Illinois Wesleyan Uni	versity	Zahia Drici	Honorable Mention	В
257	China University of N	lining and Technology	y Wu Zongxiang	Honorable Mention	В
258	China University of N	lining and Technology	y Zhu Kaiyong	Honorable Mention	В
259	Commanding Institut	e of Engineer Corps	Wang Chuanwei	Honorable Mention	Α
265	Xuzhou Institute of To	echnology	Jiang Yingzi	Honorable Mention	Α
269	Saint Mary's College		Joanne Snow	Honorable Mention	В
271	University of Michiga	n	James Wells	Honorable Mention	В
279	Jilin University		Yongkui Zou	Honorable Mention	Α
298	Harbin Institute of Te	chnology	Hong Ge	Honorable Mention	Α
301	Harbin Institute of Te	chnology	Chiping Zhang	Honorable Mention	В
311	Tianjin Polytechnic U	niversity	Liya Fan	Honorable Mention	В
313	Southwestern Univ o	f Finance & Economic	•	Honorable Mention	В
318	Tsinghua University		Jun Ye	Honorable Mention	Α
319	Tsinghua University		Jun Ye	Honorable Mention	Α
321	Tsinghua University		Zhiming Hu	Honorable Mention	Α
326	Nanjing Univ of Posts	s & Telecommunication	_	Honorable Mention	В
340	ZheJiang Univ of Fina	ance and Economics	Ji Luo	Honorable Mention	В
341	Chongqing Univ of Po	osts & Tel	Ji-ming Zheng	Honorable Mention	В
343	Chongqing University	y of Posts and Tel	Chun-de Yang	Honorable Mention	В
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Co	ontrol # Institution	Advisor	Designation	Problem
345	ZheJiang Univ of Finance and Economics	Fulai Wang	Honorable Mention	В
	Willamette University	Liz Stanhope	Honorable Mention	Α
	Beijing University of Chemical Technology	Hui Liu	Honorable Mention	В
	Beijing University of Chemical Technology	Guangfeng Jiang	Honorable Mention	Α
	South China University of Technology	Liu Shenquan	Honorable Mention	В
	South China University of Technology	Tao Zhisui	Honorable Mention	В
	Westchester Community College	Janine Epps	Honorable Mention	В
	Eastern Oregon University	David Allen	Honorable Mention	В
	Nanjing Univ of Posts & Telecommunications	LiWei Xu	Honorable Mention	В
	North China Univ of Science and Technology		Honorable Mention	В
414	New Mexico Tech	William Stone	Honorable Mention	Α
419	China Agriculture University	Junfeng Liu	Honorable Mention	В
	McGill University	Antony Humphries	Honorable Mention	Α
	University of Richmond	Kathy Hoke	Honorable Mention	В
	Nazareth College	Daniel Birmajer	Honorable Mention	В
	Shanghai Foreign Language School	Pan Liqun	Honorable Mention	В
	Shanghai Foreign Language School	Sun Yu	Honorable Mention	В
	Shanghai Foreign Language School	Pan Liqun	Honorable Mention	В
	Hangzhou University of Commerce	DING Zhengzhong	Honorable Mention	В
	Bucknell University	Sally Koutsoliotas	Honorable Mention	В
	Trinity University	Jorge Gonzalez	Honorable Mention	В
	Trinity University	Diane Saphire	Honorable Mention	В
	Thomas More College	Robert Riehemann	Honorable Mention	В
	University of Colorado at Boulder	Michael Ritzwoller	Honorable Mention	В
	University of Colorado at Boulder	Michael Ritzwoller	Honorable Mention	В
	Grand View College	Sergio Loch	Honorable Mention	A
	Juniata College	John Bukowski	Honorable Mention	A
	Georgia Institute of Technology	Bernard Kippelen	Honorable Mention	A
	Dalian College of Chemical Engineering	Yu Haiyan	Honorable Mention	В
	College of Information Eng, Dalian University	Jiatai Gang	Honorable Mention	В
	College of Information Eng, Dalian University	Jiatai Gang Jiatai Gang	Honorable Mention	В
	North China Electric Power University	gu gendai	Honorable Mention	В
	Hefei University of Technology	gu gendar Lei Shi	Honorable Mention	A
	Hefei University of Technology	Fanglin Liu	Honorable Mention	В
	Beijing University of Technology	Yang Lin	Honorable Mention	В
	Goshen College	Tarig Liri David Housman	Honorable Mention	В
	University of Pittsburgh	Jonathan Rubin	Honorable Mention	В
	Earlham College	Mihir Sejpal	Honorable Mention	В
	Wuhan University	aijiao deng	Honorable Mention	A
	Lewis and Clark College	Robert Owens	Honorable Mention	В
	Lewis and Clark College	Robert Owens Robert Owens	Honorable Mention	В
	Carroll College		Honorable Mention	В
	Hendrix College	Holly Zullo Duff Campbell	Honorable Mention	В
	Carroll College	·	Honorable Mention	В
	Institute of Artificial Intelligence	Kelly Cline	Honorable Mention	В
	College of Science	Hao Peifeng	Honorable Mention	В
	_	Sun Ping	Honorable Mention	В
	Embry-Riddle Aeronautical University	Greg Spradlin	Honorable Mention	В
	Colby College	Jan Holly	Honorable Mention	В
J1 Z	Malone College	David Hahn	HOHOLADIE MEHTION	D
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Co	ntrol# Institution	Advisor	Designation	Problem
576	Rose-Hulman Institute of Technology	David Rader	Honorable Mention	A
577	Rose-Hulman Institute of Technology	Cary Laxer	Honorable Mention	В
585	Duke University	Owen Astrachan	Honorable Mention	В
586	University of Saskatchewan	Kaori Tanaka	Honorable Mention	Α
587	Duke University	Owen Astrachan	Honorable Mention	В
613	Simpson College	Murphy Waggoner	Honorable Mention	Α
623	Unive of Science and Technology of China	Bin Su	Honorable Mention	В
624	Univ of Science and Technology of China	Yao Xie	Honorable Mention	В
625	Univ of Science and Technology of China	Tao Zhou	Honorable Mention	В
630	University College Dublin	Peter Duffy	Honorable Mention	В
647	Washington University	Hiro Mukai	Honorable Mention	В
558	Maggie Walker Governor's School	John Barnes	Honorable Mention	В
660	Harvey Mudd College	Hank Krieger	Honorable Mention	В
663	College of St Benedict / St John's University		Honorable Mention	В
666	Asbury College	Duk Lee	Honorable Mention	В
670	Youngstown State University	Scott Martin	Honorable Mention	В
	Maggie Walker Governor's School	Harold Houghton	Honorable Mention	В
672	Harvey Mudd College	Ran Libeskind-Hadas	Honorable Mention	В
086	Macalester College	Daniel Kaplan	Honorable Mention	В
681	Macalester College	Daniel Kaplan	Honorable Mention	В
83	Colorado State University - Pueblo	Bruce Lundberg	Honorable Mention	В
391	University of Alaska Fairbanks	Jill Faudree	Honorable Mention	В
94	NCSSM	Dot Doyle	Honorable Mention	Α
395	Grinnell College	Marc Chamberland	Honorable Mention	В
696	Asbury College	Ken Rietz	Honorable Mention	В
	Grinnell College	Marc Chamberland	Honorable Mention	В
	Maggie Walker Governor's School	Harold Houghton	Honorable Mention	Α
706	Pacific University	Chris Lane	Honorable Mention	Α
708	University of Puget Sound	Michael Casey	Honorable Mention	Α
716	Cornell University	Alexander Vladimirsky	Honorable Mention	Α
720	Cornell University	Eric Friedman	Honorable Mention	В
	Wuhan University of Technology	Li Yuguang	Honorable Mention	В
738	Davidson College	Laurie Heyer	Honorable Mention	В
756	University of Saskatchewan	Raj Srinivasan	Honorable Mention	Α
	University of Western Ontario	Martin Mueser	Honorable Mention	В
760	University of Western Ontario	Martin Mueser	Honorable Mention	Α
5	South Dakota School of Mines & Technology	Kyle Riley	Successful Participant	Α
7	Huazhong Univ of Science and Technology	Yongji WANG	Successful Participant	Α
3	Mount St. Mary's College	Fred Portier	Successful Participant	В
)	Mount St. Mary's College	Fred Portier	Successful Participant	В
0	Huazhong University of Sci. & Tech.	Wang Yizhi	Successful Participant	В
1	Huazhong University of Sci. & Tech.	YI SHENG JIANG	Successful Participant	В
3	Franklin College	John Boardman	Successful Participant	В
	Northwestern Polytechnical University	Nie Yufeng	Successful Participant	В
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	Northwestern Polytechnical University	Shenggui Zhang	Successful Participant	В
18 24 25	Northwestern Polytechnical University Shandong University	Shenggui Zhang Shuxiang Huang	Successful Participant Successful Participant	В

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Co	ontrol # Institution	Advisor	Designation	Problem
29	Beijing Normal University	Laifu Liu	Successful Participant	В
30	Huazhong University Of Science&Technolo	gy Nanzhong He	Successful Participant	В
31	Pacific Lutheran University	Daniel Heath	Successful Participant	Α
33	Edgewood College	Steven Post	Successful Participant	В
35	Shandong University	Qian Wang	Successful Participant	Α
36	Fudan University	Zhijie Cai	Successful Participant	Α
37	Fudan University	Yuan Cao	Successful Participant	Α
40	Beijing University of Technology	Enli Guo	Successful Participant	В
41	Beihang University	Sanxing Wu	Successful Participant	В
42	Shandong University	Zhaoping Zhang	Successful Participant	В
43	Shandong University	Jianhua Ma	Successful Participant	Α
46	Anhui University	Zehui He	Successful Participant	В
48	Anhui University	Xuejun Wang	Successful Participant	В
49	Beihang University	Linping Peng	Successful Participant	Α
50	Beijing Normal University	Qing He	Successful Participant	В
51	Southern Oregon University	Kemble Yates	Successful Participant	В
52	Dalian Nationalities University	Xiaoniu Li	Successful Participant	Α
54	Sacred Heart University	Peter Loth	Successful Participant	В
55	Sacred Heart University	Hema Gopalakrishnan	Successful Participant	В
56	Anhui University	Jihui Wang	Successful Participant	В
57	Anhui University	Quanbing Zhang	Successful Participant	В
61	Beijing University of Technology	Yi Xue	Successful Participant	Α
62	Beijing University of Technology	Mike Deng	Successful Participant	Α
64	Southeast University	Zhi-qiang Zhang	Successful Participant	Α
65	Southeast University	Dan He	Successful Participant	Α
71	California State University, Northridge	Ali Zakeri	Successful Participant	В
73	Shandong University	Fu Guohua	Successful Participant	В
76	City College, Zju	yanan zhao	Successful Participant	Α
77	City College, Zju	yanan zhao	Successful Participant	Α
79	City College, Zju	waibin huang	Successful Participant	В
80	City College, Zju	ting dong	Successful Participant	В
81	Sun Yat-Sen University	GuoCan Feng	Successful Participant	В
82	Sun Yat-Sen University	CaiWei Li	Successful Participant	В
84	Sun Yat-Sen University	XiaoLong Jiang	Successful Participant	Α
88	Peking University	Hanqing Zheng	Successful Participant	В
90	Shanghai Univ of Finance and Economics	Bing Xie	Successful Participant	Α
91	Westchester Community College	Marvin Littman	Successful Participant	В
92	Simon's Rock College	Allen Altman	Successful Participant	Α
94	Simon's Rock College	Michael Bergman	Successful Participant	В
95	Simon's Rock College	Michael Bergman	Successful Participant	В
96	Beihang University	Hongying Liu	Successful Participant	Α
97	China University of Geosciences(Wuhan)	Cai ZhiHua	Successful Participant	В
98	Shanghai Yucai High School	Zhengtai Li	Successful Participant	В
107	Jinan University	Shiqi Ye	Successful Participant	В
108	Jinan University	Shizhuang Luo	Successful Participant	В
109	Jinan University	Chuanlin Zhang	Successful Participant	Α
110	Jinan University	Daiqiang Hu	Successful Participant	В
112	Beihang University	Liu Hongying	Successful Participant	Α
114	Jiading No.1 Senior High School	Xilin Xie	Successful Participant	В
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Co	ntrol # Institution	Advisor	Designation	Problem
115	East China Univ of Science and Technology	Su Chunjie	Successful Participant	В
118	East China Univ of Science and Technology	Liu Zhaohui	Successful Participant	В
119	East China Univ of Science and Technology	Qin Yan	Successful Participant	Α
126	University of Petroleum, China	ziting wang	Successful Participant	В
127	Xidian University	Zhou Shuisheng	Successful Participant	В
129	Xidian University	Zhang Zhuokui	Successful Participant	Α
131	XiDian University	Ye Ji-Min	Successful Participant	В
139	Beijing Univof Posts & Telecommunications	Xiaoxia Wang	Successful Participant	В
144	Univ. of Elec. Sci. & Tech.	Gao Qing	Successful Participant	Α
145	Univ. of Elec. Sci. & Tech.	Li Mingqi	Successful Participant	Α
146	Xi'an Jiaotong University	Yonghong Dai	Successful Participant	В
147	Xi'an Jiaotong University	Yonghong Dai	Successful Participant	В
150	Xi'an Jiaotong University	Xiaoliang He	Successful Participant	Α
151	Xi'an Jiaotong University	Xiaoliang He	Successful Participant	В
152	Southwest Transportation Univ E'mei	Han Yang	Successful Participant	В
153	Southwest Transportation University, E'mei	Han Yang	Successful Participant	Α
155	Liberty Christian School	Laura Duncan	Successful Participant	Α
158	Liberty Christian School	bryan bunselmeyer	Successful Participant	В
159	Liberty Christian School	bryan bunselmeyer	Successful Participant	Α
160	Rowan University	Hieu Nguyen	Successful Participant	В
164	Beijing Institute of Technology	Chen Yihong	Successful Participant	В
165	Beijing Institute of Technology	Chen Yihong	Successful Participant	Α
174	South-China Normal University	Liu Xiuxiang	Successful Participant	Α
175	Zhejiang University,College of Science	Qifan Yang	Successful Participant	В
176	Zhejiang University,College of Science	Qifan Yang	Successful Participant	В
178	Zhejiang University	Yong He	Successful Participant	В
184	University College Dublin	Maria Meehan	Successful Participant	В
185	Roanoke College	Jeffrey Spielman	Successful Participant	В
188	Civil Aviation University of China	Songnian He	Successful Participant	В
189	Civil Aviation University of China	Yongxin Gao	Successful Participant	В
192	Huazhong University of Sci. & Tech.	Wenchao Guan	Successful Participant	В
193	Xi'an Communication Institute	Dongsheng Yang	Successful Participant	Α
194	Xi'an Communication Institute	Guo Li	Successful Participant	Α
195	Xi'an Communication Institute	Guo Li	Successful Participant	Α
196	Xi\'an Communication Institute	Yan Jiang	Successful Participant	В
197	Northwest Missouri State University	Russell Euler	Successful Participant	В
199	University of Massachusetts Lowell	James Graham-Eagle	Successful Participant	В
200	Donghua University	Zhaoxia Guo	Successful Participant	Α
202	Donghua University	Guoxing He	Successful Participant	Α
204	Nanchang University	Tao Chen	Successful Participant	Α
205	Nanchang University	Tao Chen	Successful Participant	Α
206	Nanchang University	Chuanrong Liao	Successful Participant	В
207	Department of Mathematics, Dalian university	Xinxin Tan	Successful Participant	В
209	Villanova University	Bruce Pollack-Johnson	Successful Participant	В
210	University of WisconsinRiver Falls	Kathy Tomlinson	Successful Participant	В
	University of Colorado at Colorado Springs	Radu Cascaval	Successful Participant	Α
	Shandong University	Xiqing He	Successful Participant	Α
	Gettysburg College	Sharon Stephenson	Successful Participant	В
	Univ. of Elec. Sci. & Tech.	Li Mingqi	Successful Participant	В
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	In a Classic and			
Co	entrol # Institution	Advisor	Designation	Problem
226	Central South University	Hou Muzhou	Successful Participant	A
227	Central South University	Zhang Hongyan	Successful Participant	В
228	Science College, NatlUniv ofDefence	Ziyang Mao	Successful Participant	В
229	Science College, National Univ of Defence	Ziyang Mao	Successful Participant	В
230	Science College, National Univ of Defence	Mengda Wu	Successful Participant	Α
233	National University of Defence Technology	Lizhi Cheng	Successful Participant	Α
234	Nankai University	Wuqun Huang	Successful Participant	В
238	Central South University	Kunnan Yi	Successful Participant	В
240	Nanjing Normal University	Fu Shitai	Successful Participant	Α
241	Nanjing Normal University	Fu Shitai	Successful Participant	В
242	Nanjing Normal University	Chen Xin	Successful Participant	В
243	Nanjing Normal University	Chen Xin	Successful Participant	В
245	Beijing Materials Institute	Tian Liang	Successful Participant	В
246	Beijing Materials Institute	Cheng Hong	Successful Participant	В
247	Beijing Materials Institute	Tian Liang	Successful Participant	В
248	Beijing Materials Institute	Cheng Hong	Successful Participant	Α
	Hastings College	David Cooke	Successful Participant	В
	Austin College	John Jaroma	Successful Participant	В
	Austin College	John Jaroma	Successful Participant	В
255	China University of Mining and Technology	Zhou Shengwu	Successful Participant	Α
	China University of Mining and Technology	Zhang Xingyong	Successful Participant	В
	Commanding Institute of Engineer Corps	Wang Chuanwei	Successful Participant	Α
	Harbin University of Science and Technology	•	Successful Participant	Α
	Xuzhou Institute of Technology	Li Subei	Successful Participant	Α
	Harbin University of Science and Technology		Successful Participant	В
	Shanghai Normal University	Shenghuan Guo	Successful Participant	В
	Saint Mary's College	Joanne Snow	Successful Participant	Α
	Dalian University of Technology	Lizhong zhao	Successful Participant	В
	Dalian University of Technology	Hongquan Yu	Successful Participant	В
	Dalian University of Technology	Yi Wang	Successful Participant	В
	Jilin University	Qingdao Huang	Successful Participant	В
	Jilin University	Yongchen Pei	Successful Participant	В
	Jilin University	Peichen Fang	Successful Participant	В
	Northeast China Inst of Electric Power	Xinchen Guo	Successful Participant	В
	Northeast China Inst of Electric Power	Zhiwen Chang	Successful Participant	В
	Linfield College	Jennifer Nordstrom	Successful Participant	В
	Harbin Institute of Technology Science	Shouting Shang	Successful Participant	A
	Harbin Institute of Technology	•	Successful Participant	В
	Harbin Institute of Technology	Hong Ge Chiping Zhang	Successful Participant	A
	Guangxi University	Chiping Zhang Lv Yuejin	Successful Participant	В
	Guangxi University	•	Successful Participant	В
	Washington College	Lv Yuejin	Successful Participant	В
	Washington College	Eugene Hamilton	Successful Participant	В
	Chongqing University	Eugene Hamilton	Successful Participant	В
	Chongqing University	Gong Qu	Successful Participant	В
		Li Chuandong	•	A
	Tianjin Polytechnic University	Yongfu Su	Successful Participant	В
	Chongqing University	He Renbin	Successful Participant	
	Beijing Normal University	Qing He	Successful Participant	В
332	Beijing Jiaotong University	Minghui Liu	Successful Participant	В
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	•	2004 ICM Contest Results		
Co	ntrol # Institution	Advisor	Designation	Problem
334	School of Science,Beijing Jiaotong Univ	Bing Tuan	Successful Participant	В
336	Beijing Jiaotong University	Wang Bingtuan	Successful Participant	Α
337	Beijing Jiaotong University	Wang Bingtuan	Successful Participant	В
338	School of Science,Beijing Jiaotong Univ	Shangli Zhang	Successful Participant	В
339	School of Science,Beijing Jiaotong Univ	Shangli Zhang	Successful Participant	В
342	Anhui Univ of Technology &Science	sun hongyi sun hongyi	Successful Participant	В
344	Anhui Univ of Technology & Science	ang xubing yang xubing	Successful Participant	В
346	Anhui Univ of Tech & Science wa	ing chuanyu wangchuanyu	Successful Participant	Α
347	Shenyang Pharmaceutical University	Rongwu Xiang	Successful Participant	В
348	Shenyang Pharmaceutical University	Rongwu Xiang	Successful Participant	Α
351	Benedict College	Balaji Iyangar	Successful Participant	В
353	Eastern Michigan University	Christopher Hee	Successful Participant	В
354	Eastern Michigan University	Christopher Hee	Successful Participant	В
355	Western Washington University	Tjalling Ypma	Successful Participant	Α
356	Jacksonville University	Robert Hollister	Successful Participant	В
357	Jacksonville University	Robert Hollister	Successful Participant	В
358	Harbin Normal University	Huanmin Yao	Successful Participant	В
359	Harbin Normal University	Huanmin Yao	Successful Participant	В
361	Harbin Normal University	Yanying Zhang	Successful Participant	В
362	Harbin Normal University	Weiliang Zeng	Successful Participant	В
364	Harbin Normal University	Mingyue Xu	Successful Participant	В
365	Harbin Normal University	Mingyue Xu	Successful Participant	В
366	Harbin Normal University	Hongcai Yin	Successful Participant	В
367	Harbin Normal University	Hongcai Yin	Successful Participant	В
370	Beijing University of Chemical Technology	Jinyang Huang	Successful Participant	Α
372	Beijing University of Chemical Technology	Damin Liu	Successful Participant	Α
375	Virginia Western Community College	Ruth Sherman	Successful Participant	В
376	Virginia Western Community College	Ruth Sherman	Successful Participant	В
377	Northern Kentucky University	Gail Mackin	Successful Participant	Α
378	Northern Kentucky University	Gail Mackin	Successful Participant	В
379	Tsinghua University	Qiyuan Jiang	Successful Participant	В
382	Harbin Engineering Univ Science College	Jihong Shen	Successful Participant	В
383	Harbin Engineering Univ Science College	Jihong Shen	Successful Participant	В
384	Harbin Engineering University	Xiaowei Zhang	Successful Participant	В
385	Harbin Engineering University	Xiaowei Zhang	Successful Participant	В
387	Harbin Engineering University	Zhenbin Gao	Successful Participant	Α
388	Harbin Engineering University	Fei Yu	Successful Participant	Α
390	Luther College	Reginald Laursen	Successful Participant	В
392	South China University of Technology	Liu Shenquan	Successful Participant	В
394	Wheaton College	Paul Isihara	Successful Participant	В
396	Southeastern Oklahoma State University	Brett Elliott	Successful Participant	В
401	Olin College of Engineering	John Geddes	Successful Participant	В
403	South China University of Technology	Liang Manfa	Successful Participant	В
408	North China Univ of Science and Technology	Yang Ming	Successful Participant	В
409	North China Univ of Science and Technology	Lei Jie	Successful Participant	Α
410	Northern Kentucky University	Sharmanthie Fernando	Successful Participant	В
415	Baylor University	Frank Mathis	Successful Participant	В
416	Nanjing Univ of Posts &Telecommunications	Ming He	Successful Participant	В
417	Nanjing Univ of Posts & Telecommunications	Zhenhua Yang	Successful Participant	Α
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Co	ntrol # Institution	Advisor	Designation	Problem
420	China Agriculture University	Junfeng Liu	Successful Participant	В
422	University of Richmond	Kathy Hoke	Successful Participant	В
430	Mt. Mercy College	K. Knopp	Successful Participant	В
431	Emporia State University	Brian Hollenbeck	Successful Participant	Α
433	Bemidji State University	Colleen Livingston	Successful Participant	В
434	Loyola College	Christos Xenophontos	Successful Participant	В
440	Hangzhou University of Commerce	DING Zhengzhong	Successful Participant	В
442	Hangzhou University of Commerce	HUA Jiukun	Successful Participant	Α
443	Hangzhou University of Commerce	HUA Jiukun	Successful Participant	Α
448	Dulwich College	Jeremy Lord	Successful Participant	В
450	Mount St. Mary's College	Robert Richman	Successful Participant	В
452	Worcester Polytechnic Institute	Suzanne Weekes	Successful Participant	В
453	Saint Louis University	James Dowdy	Successful Participant	Α
456	Lawrence Technological University	Ruth Favro	Successful Participant	В
457	Lawrence Technological University	Ruth Favro	Successful Participant	В
458	Trinity University	Allen Holder	Successful Participant	Α
459	Trinity University	Robert Laird	Successful Participant	В
463	University of Saskatchewan	James Brooke	Successful Participant	Α
464	Institut Teknologi Bandung	Rieske Hadianti	Successful Participant	В
467	Shanghai Normal University	Yongbin Shi	Successful Participant	В
468	Shanghai Normal University	Rongguan Liu	Successful Participant	В
475	Yale University	Andrew Barron	Successful Participant	В
476	United States Military Academy	Gregory Parnell	Successful Participant	Α
478	California Baptist University	Catherine Kong	Successful Participant	В
479	California State University at Monterey Bay	Hongde Hu	Successful Participant	Α
480	California State University at Monterey Bay	Hongde Hu	Successful Participant	В
482	Juniata College	John Bukowski	Successful Participant	Α
483	Meredith College	Cammey Cole	Successful Participant	В
492	North China Electric Power University`	Zhang Po	Successful Participant	В
495	North China Electric Power University`	Ma Xinshun	Successful Participant	В
496	Guangzhou University	RongLin Fu	Successful Participant	Α
497	Guangzhou University	Yongping Feng	Successful Participant	Α
498	Guangzhou University	Dahong Liang	Successful Participant	Α
499	Guangzhou University	RongLin Fu	Successful Participant	Α
500	Shanghai Normal University	Jizhou Zhang	Successful Participant	В
506	Shanghai Jiaotong University	Guobiao Zhou	Successful Participant	Α
508	Siena Heights University	Toni Carroll	Successful Participant	В
510	Hefei University of Technology	Youdu Huang	Successful Participant	В
511	Hefei University of Technology	Hua Chen	Successful Participant	В
515	Northeast Agricultural University	huiling ge	Successful Participant	Α
519	Northeast Agricultural University	qiufeng wu	Successful Participant	В
523	Goshen College	David Housman	Successful Participant	В
525	Earlham College	Michael Jackson	Successful Participant	В
526	Miami University	Stephen Wright	Successful Participant	В
527	Earlham College	Timothy McLarnan	Successful Participant	В
528	Miami University	Stephen Wright	Successful Participant	В
530	Earlham College	Mihir Sejpal	Successful Participant	В
536	Johnson State College	Glenn Sproul	Successful Participant	Α
539	Heritage College	Richard Swearingen	Successful Participant	В
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Co	entrol # Institution	Advisor	Designation	Problem
540	Northland College	William Long	Successful Participant	A
541	Regis University	Jim Seibert	Successful Participant	Α
542	Regis University	Jim Seibert	Successful Participant	В
545	Lewis and Clark College	Clifford Bekar	Successful Participant	В
548	Institute of Artificial Intelligence	Hao Peifeng	Successful Participant	Α
550	College of Science	Sun Ping	Successful Participant	В
552	Institute of Mechanics	He Xuehong	Successful Participant	Α
553	Institute of Mechanics	He Xuehong	Successful Participant	В
554	Institute of System Control	Yuanwei Jing	Successful Participant	Α
556	Institut Teknologi Bandung	Edy Soewono	Successful Participant	Α
558	Beihang University	Zhang Jia	Successful Participant	В
559	Jiamusi University	Bai FengShan	Successful Participant	В
560	Jiamusi University	Bai FengShan	Successful Participant	Α
561	North China Univ of Science and Technology	bi yong	Successful Participant	Α
562	Marist College	Tracey McGrail	Successful Participant	В
563	Lawrence Technological University	Valentina Tobos	Successful Participant	Α
564	Boston University	Glen Hall	Successful Participant	Α
565	Beijing Forestry University	Hongjun Li	Successful Participant	Α
566	United States Military Academy	A. Trubatch	Successful Participant	Α
567	Embry-Riddle Aeronautical University	Greg Spradlin	Successful Participant	В
570	Clarion University	Jon Beal	Successful Participant	В
571	Colby College	Jan Holly	Successful Participant	В
573	Malone College	David Hahn	Successful Participant	В
575	Rose-Hulman Institute of Technology	David Rader	Successful Participant	В
580	Villa Julie College	Eileen McGraw	Successful Participant	В
582	Carroll College	Marilyn Schendel	Successful Participant	Α
588	Appalachian State University	Eric Marland	Successful Participant	В
589	Stetson University	Lisa Coulter	Successful Participant	В
590	Appalachian State University	Eric Marland	Successful Participant	В
592	Georgia Southern University	Laurene Fausett	Successful Participant	В
593	Georgia Southern University	Laurene Fausett	Successful Participant	В
594	Western New England College	Lorna Hanes	Successful Participant	Α
595	Western New England College	Lorna Hanes	Successful Participant	Α
597	University of Colorado at Denver	William Briggs	Successful Participant	В
599	University of South Carolina Aiken	Thomas Reid	Successful Participant	В
600	Rhode Island College	David Abrahamson	Successful Participant	В
601	Rhode Island College	David Abrahamson	Successful Participant	Α
603	University of New South Wales	James Franklin	Successful Participant	Α
604	University of New South Wales	James Franklin	Successful Participant	Α
605	California State Polytechnic Univ, Pomona _{Dr. H}	lale, Dr. Mihaila, Dr. Switkes	Successful Participant	В
	California State Polytechnic Univ, Pomona		Successful Participant	В
610	United States Air Force Academy	James Rolf	Successful Participant	В
614	Simpson College	Werner Kolln	Successful Participant	Α
	Jiamusi University	Fan Wei	Successful Participant	В
	Jiamusi University	Fan Wei	Successful Participant	Α
	Univ of Science and Technology of China	Xuli Le	Successful Participant	В
	NorthwestUniversity	Liantang Wang	Successful Participant	Α
	University of Trier	Volker Schulz	Successful Participant	В
	Austin Peay State University	Nell Rayburn	Successful Participant	Α
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	•	2004 ICW Contest Resul	ito .	
Co	entrol # Institution	Advisor	Designation	Problem
632	Austin Peay State University	Nell Rayburn	Successful Participant	A
633	Mathematical High School of Helsinki	Ville Virtanen	Successful Participant	В
634	Mathematical High School of Helsinki	Ville Virtanen	Successful Participant	Α
638	Midlands Technical College	John Long	Successful Participant	Α
639	Midlands Technical College	John Long	Successful Participant	Α
640	Towson University	Mike O'Leary	Successful Participant	В
641	Lewis and Clark College	Clifford Bekar	Successful Participant	В
642	Salisbury University	mike bardzell	Successful Participant	В
643	Salisbury University	Steven Hetzler	Successful Participant	В
644	Boise State University	Jodi Mead	Successful Participant	В
645	National University of Ireland, Galway	Niall Madden	Successful Participant	В
646	National University of Ireland, Galway	Niall Madden	Successful Participant	В
650	Paivola College	Esa Lappi	Successful Participant	В
654	Siena Heights University	Pamela Warton	Successful Participant	Α
656	Maggie Walker Governor's School	John Barnes	Successful Participant	В
	Siena Heights University	Pamela Warton	Successful Participant	Α
	Youngstown State University	Angela Spalsbury	Successful Participant	В
664	Youngstown State University	Angela Spalsbury	Successful Participant	Α
673	Youngstown State University	Scott Martin	Successful Participant	Α
685	Western Carolina University	Erin McNelis	Successful Participant	В
686	York Technical College	Frank Caldwell	Successful Participant	Α
688	California State University, Bakersfield	Maureen Rush	Successful Participant	Α
	North Carolina State University (NCSU)	Jeffrey Scroggs	Successful Participant	В
	University of Alaska Fairbanks	Jill Faudree	Successful Participant	Α
	Westminster College	Barbara Faires	Successful Participant	В
	Westminster College	Barbara Faires	Successful Participant	Α
	Nothern Illinois University	Ying Kwong	Successful Participant	Α
	California Polytechnic St Univ,San Luis Obisp	OO Jonathan Shapiro	Successful Participant	В
	Grinnell College	Jason Zimba	Successful Participant	В
	California Polytechnic State University, San	Jonathan Shapiro	Successful Participant	В
	Pacific University	Chris Lane	Successful Participant	В
	University of Puget Sound	Michael Casey	Successful Participant	В
	Wright State University	Thomas Svobodny	Successful Participant	В
	Nanjing University of Science & Technology	Zhengjun Zhang	Successful Participant	В
	Nanjing University of Science & Technology	Chungen Xu	Successful Participant	В
	Cornell University	Eric Friedman	Successful Participant	В
	Nanjing University of Science & Technology	Liwei Liu	Successful Participant	В
	Wuhan University of Technology	Peng jun	Successful Participant	В
	Southern Connecticut State University	Ross Gingrich	Successful Participant	В
	Wuhan University of Technology	Wang qing	Successful Participant	В
	Wuhan University of Technology	He Lang	Successful Participant	В
	Wuhan University	Yuanming Hu	Successful Participant	A
	York University	Huaxiong Huang	Successful Participant	A
	Christian Heritage College	Tibor Szarvas	Successful Participant	В
	Davidson College	Laurie Heyer	Successful Participant	В
	York University	Huaiping Zhu	Successful Participant	В
	Roberts Wesleyan College	Gary Raduns	Successful Participant	A
	Monmouth College	Christopher Fasano	Successful Participant	В
/51	University of Puget Sound	John Riegsecker	Successful Participant	В
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Co	entrol # Institution	Advisor	Designation	Problem
754	Belmont University	Andrew Miller	Successful Participant	В
755	University College, Cork	Andrew Usher	Successful Participant	В
758	Saint Louis University	Dennis Bouvier	Successful Participant	В
761	Appalachian State University	Anthony Calamai	Successful Participant	В
762	Hood College	Betty Mayfield	Successful Participant	Α
763	Hood College	Kimber Tysdal	Successful Participant	Α
764	Bard College	Robert McGrail	Successful Participant	В
766	Bard College	Robert McGrail	Successful Participant	В
767	University of San Dlego	Jeffrey Wright	Successful Participant	В
768	University of San Dlego	Jeffrey Wright	Successful Participant	Α
769	Beijing Normal Universty	Zijuan Lu	Successful Participant	Α
770	University of San Diego	Diane Hoffoss	Successful Participant	В
771	Northern Arizona University	terence blows	Successful Participant	Α
773	UCF	Costas Efthimiou	Successful Participant	Α
775	Lawrence Technological University	Valentina Tobos	Successful Participant	Α
776	California State University, Stanislaus	Brian Jue	Successful Participant	В
777	Bard College	Lauren Rose	Successful Participant	Α
778	Colgate University	Warren Weckesser	Successful Participant	В