

ICM Dear Colleagues:

The Interdisciplinary Contest in Modeling (ICM), an international contest for high school students and college undergraduates, will hold its 10<sup>th</sup> annual competition in February 2008. Last year, 273 teams from 126 institutions in 5 countries participated in the contest. ICM is designed to develop and advance interdisciplinary problem-solving skills as well as competence in written communication. The interdisciplinary problem has changed its emphasis from strictly environmental issues to reflect a quantitative situation in mathematics; operations research; systems engineering; information, industrial, or physical security; or resource and environment protection and management.

Your institution may be part of the ICM effort by your encouraging a member of your department to serve as a faculty advisor and by promoting the participation of faculty and students from associated departments. Advisors help organize the teams, distribute contest materials, and return solution papers to COMAP.

Please take a moment to read this brief overview and then go online at [www.comap.com/undergraduate/contests](http://www.comap.com/undergraduate/contests) for more information about registration, deadlines, and contest rules. All registration will take place online. There is a \$75 registration fee to help defray the cost of the contest. If you have any questions please contact [icm@mail.comap.com](mailto:icm@mail.comap.com).

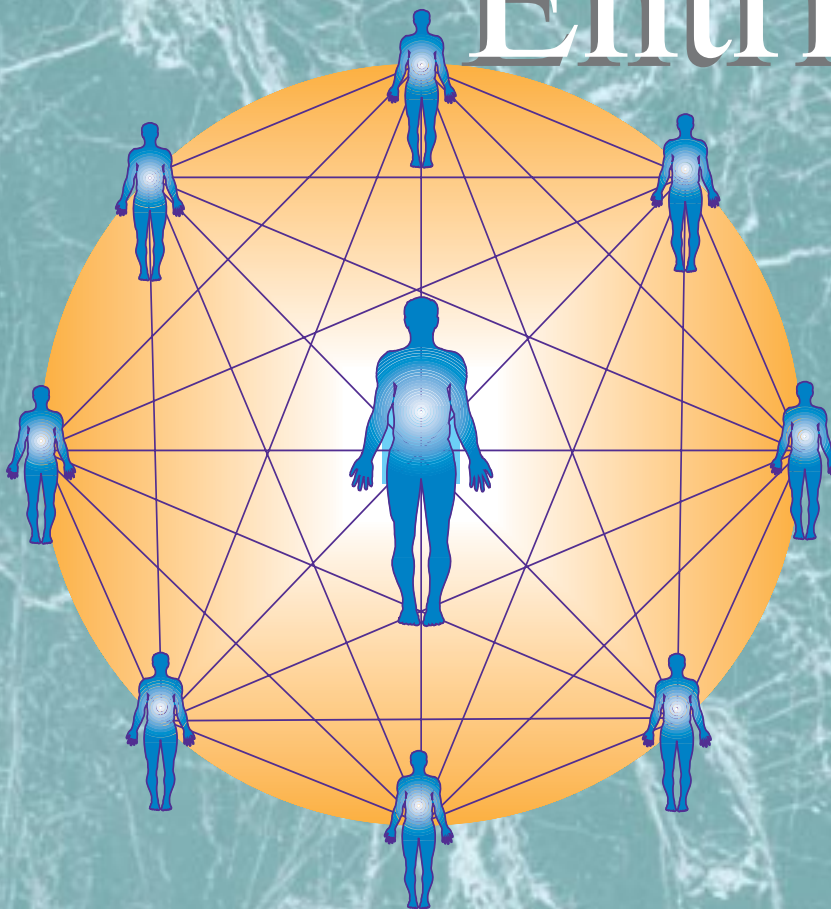
We hope that you and your team(s) will enjoy this modeling challenge.

Best Wishes,



Chris Arney, Contest Director

# 2008 MCM/ICM Call for Entries



MCM Dear Colleagues:

The Mathematical Contest in Modeling (MCM), a unique international contest for high school students and college undergraduates, will hold its 24<sup>th</sup> annual competition in February 2008. Last year, 949 teams from 364 institutions in 12 countries participated in the contest. The MCM is designed to stimulate and improve problem-solving and writing skills in mathematics. Students participate as team members rather than as individuals, creating an environment for sharing knowledge and skills.

Your institution may take part in the MCM effort by your encouraging a member of your department to serve as a faculty advisor. Advisors help organize the teams, distribute contest materials, and return solution papers to COMAP.

Please take a moment to read this brief overview and then go online at [www.comap.com/undergraduate/contests](http://www.comap.com/undergraduate/contests) for more information about registration, deadlines, and contest rules. All registration will take place online. There is a \$75 registration fee to help defray the cost of the contest. If you have any questions please contact [mcm@mail.comap.com](mailto:mcm@mail.comap.com).

We hope that you and your team take pleasure in this intellectual challenge and enjoy the spirit of this competition.

Best Wishes,



Frank R. Giordano, Contest Director

## Recent ICM Contest Outstanding Teams

Duke University, NC  
Princeton University, NJ

### Contest Directors

Chris Arney  
U. S. Army Research Office, NC

Joseph Myers  
U. S. Military Academy, NY

### Executive Director

Solomon A. Garfunkel  
COMAP, Inc., MA

### Associate Directors

Richard Cassady  
University of Arkansas, AR

Kathleen Snook  
U. S. Army (Retired)

## The MCM and ICM Contests are Sponsored by:



The National Security Agency

The Institute for Operations Research and the  
Management Sciences

The Society for Industrial and Applied Mathematics

The Mathematical Association of America

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## Contest Overview

MCM and ICM are parallel contests and follow similar rules.  
All the information listed below, except where noted, pertains to both contests.

### The Ground Rules

**Contest Date and Time:** The 2008 contests must be accomplished at a local facility starting at 8:01 PM EST on Thursday, February 14, 2008 and ending at 8:00 PM EST on Monday, February 18, 2008.

Faculty advisors must ensure that no alterations of any form are made after the 8:00 PM cutoff.

All papers must be received at COMAP by Friday, February 29, 2008.

**The Contest Materials:** The contest Website contains all the guidelines, requirements, judging criteria, and suggested procedures for the submission of solution papers, including step-by-step instructions.

**No materials will be available in any other form.**

On Thursday, February 14 at 8:00 PM EST, the contest problems will be posted on the contest Website.

**The Advisors:** The advisor informs students about this competition and encourages the formulation of teams.

Advisors may guide and rehearse the team prior to the beginning of the competition.

During the competition, the students are expected to develop all of the substantive analysis without the help of others.

**Registration of Teams:** All teams must register online on or before Feb. 14, 2008 at 2:00 PM EST.

**A \$75 registration fee must be paid at registration online in order to participate.**

For MCM, each institution may enter up to four teams, but a maximum of two per department.

**For ICM, each institution may enter up to three interdisciplinary teams.**

Each team consists of up to three high school or undergraduate students who are enrolled in school at the time of the contest.

Team members do not need to be named at the time of registration, but they must be determined before the contest problems are read.

**The Contest Problems:** Teams will choose one of three modeling problems:

MCM Problem A (continuous) or  
MCM Problem B (discrete)  
ICM Problem C (interdisciplinary)

Data, if needed, will be attached to the problem or available on the contest Website.

Sample problems from other years are online at [www.comap.com/undergraduate/contests](http://www.comap.com/undergraduate/contests).

**The Report:** Participants may use all the resources available such as computers, libraries, software packages, Internet, or any other inanimate sources.

Problems are designed to be open-ended and are unlikely to have a unique solution.

Attention must be focused on clarity, analysis, and design of the solution.

The narrative section of the solution papers must be typed and in English. Partial solutions are acceptable.

Three copies of each paper must be submitted.

**Results:** Judging will be completed by March 31, 2008.

Team solutions will be designated as Successful Participant, Honorable Mention, Meritorious, or Outstanding.

The results will be posted on COMAP's Website.

Certificates and press release will be mailed by April 30, 2008.

Outstanding teams will have their solution papers published in *The UMAP Journal*.

**Prizes:** The Institute for Operations Research and the Management Sciences (INFORMS) will designate an Outstanding Team from each of the three problems as an INFORMS winner.

The Society for Industrial and Applied Mathematics (SIAM) will designate one Outstanding Team from each problem as a SIAM winner.

The Mathematical Association of America (MAA) will designate one Outstanding Team from each problem for the MCM as a MAA winner.

For detailed information on all of the above, please go to the contest Website at:

[www.comap.com/undergraduate/contests](http://www.comap.com/undergraduate/contests).

## Recent MCM Contest Outstanding Teams

University of Washington, WA (2 Teams)  
Harvard University, MA

MIT, MA

University of Stellenbosch, South Africa  
Truman State University, MO

National University of Singapore, Singapore

University of Puget Sound, WA

School of Mathematical Sciences,  
Peking University, China

National University of Defense Technology, China

Duke University, NC (3 Teams)

Slippery Rock University, PA

Rowan University, NJ

### Contest Director

Frank R. Giordano  
Naval Postgraduate School,  
CA

### Executive Director

Solomon A. Garfunkel  
COMAP, Inc., MA

### Founding Director

Ben Fusaro  
Florida State University,  
FL

### Associate Directors

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Naval Postgraduate  
School, CA  
Bob Borrelli  
Harvey Mudd College, CA  
Patrick Driscoll  
U. S. Military Academy,  
NY

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