**Contest Rules, Registration and Instructions**

**竞赛规则，报名和指导**

 *(All rules and instructions apply to both ICM and MCM contests.)*

*（所有规则和说明对ICM和MCM竞赛均适用。）*

To participate in a contest, each team may consist of a maximum of three students and must be sponsored by a faculty advisor from its institution.

每个参赛队伍最多可以有三名学生，并且必须有一名所在单位的指导教师负责。

**Team Members: A team may consist of up to three students from the same school and is open to all undergraduate and high school students.**

**队员：一个队伍最多可由来自同一学校的三名学生组成，竞赛向所有本科和高中生开放。**

**Team Advisors:** Any faculty, staff member, or student at your institution can fulfill the role of Advisor. The advisor will act as the main point of contact for the team, and does not have to be from the mathematics department. We do however encourage faculty members to serve as team advisors.

**指导教师：** 你所在单位的任何教职员工或学生都可以担任指导教师。指导教师将作为团队的主要联系人。指导教师无需来自数学学院。不过，我们鼓励教职员工担任队伍指导教师。

Please print a copy of these contest instructions for reference before, during, and after the contest. [**Click here for the printer friendly version**](http://www.comap.com/undergraduate/contests/mcm/instructions.html).

请打印此说明副本以供赛前、赛中和赛后参考。[**点击这里打印友好版本**](http://www.comap.com/undergraduate/contests/mcm/instructions.html)。（http://www.comap.com/undergraduate/contests/mcm/instructions.html）

[**MCM-ICM：丰富经验的程序和技巧**](http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM_Tips.pdf)（http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM\_Tips.pdf）

[**MCM-ICM：**](http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM_Tips_%28Chinese%29.pdf)[**丰富经验的**](http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM_Tips.pdf)[**程序和技巧（中文）**](http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM_Tips_%28Chinese%29.pdf)**（http://www.comap.com/undergraduate/contests/resources/PDF/MCM-ICM\_Tips\_(Chinese).pdf）**

The purpose of this article is to assist and guide students and advisors participating in The Mathematical Contest in Modeling (MCM) and The Interdisciplinary Contest in Modeling (ICM). In the article, COMAP, provides information about the administration of the contests, as well as tips to ensure your contest experience is smooth, satisfying, and enjoyable.
这篇文章的目的是帮助和指导参加数学建模竞赛（MCM）和跨学科建模竞赛（ICM）的学生和指导教师。在这篇文章中，COMAP提供了有关竞赛管理的信息，以及提示，以确保你的竞赛体验顺利，满意，愉快。

 [**I. BEFORE THE CONTEST BEGINS:**](http://www.comap.com/undergraduate/contests/mcm/instructions.html#I)**竞赛开始前**

**A. Registration报名**

**B. Choose your team members 组队**

[**II. AFTER THE CONTEST BEGINS:**](http://www.comap.com/undergraduate/contests/mcm/instructions.html#II)**竞赛开始后**

**A. View the contest problems via the contest web site 在竞赛官网查看原题**

**B. Choose a problem 选择赛题**

**C. Teams prepare solutions 队伍准备论文**

**D. Print Summary Sheet and Control Sheet 准备摘要和控制页**

[**III. BEFORE THE CONTEST ENDS:**](http://www.comap.com/undergraduate/contests/mcm/instructions.html#III) **竞赛结束前**

**A. Send electronic copy of Solution Paper by email 通过电子邮件发送论文电子版**

[**IV. WHEN THE CONTEST ENDS:**](http://www.comap.com/undergraduate/contests/mcm/instructions.html#IV) **竞赛结束时**

**A. Prepare Control Sheet 准备控制页**

**B. Mail signed Control Sheet 邮寄已签字控制页**

[**V. AFTER THE CONTEST IS OVER:**](http://www.comap.com/undergraduate/contests/mcm/instructions.html#V) **竞赛结束后**

**A. Confirm that your team’s solution was received 确认论文已收到**

**B. Check contest results 查看竞赛结果**

**C. Prizes/Certificates 获奖/证书**

**2019 Contest changes/updates can be found in red below:**

* MCM/ICM is an all electronic submission!
* You are not required to mail a print copy of your Solution Paper.
* You are not required to mail a print copy of your signed Control Sheet.
* We have added 3 hours to the contest start time to allow for teams to download, read, discuss, and choose a problem. Teams can view the contest problems via the contest web site when the contest begins at 5PM EST on Thursday January 24, 2019.

**2019 Contest dates and times:**

* Registation Deadline: Before 3PM EST on Thursday, January 24, 2019.
* Contest Starts: 5PM EST on Thursday, January 24, 2019.
* Contest Ends: 8PM EST on Monday, February 12, 2018.
* Email Submission Deadline: 9PM EST on Monday, January 28, 2019.
* Control Sheet Submission Deadline: 5PM EST on Friday, February 8, 2019.
* Contest Results: The results will be posted on April 29, 2019.

**2019年竞赛的变化/更新可以在下面找到红色**

* MCM / ICM全部为电子版提交！
* 不需要邮寄解决打印版论文的。
* 不需要邮寄打印版签字控制页。
* 我们在竞赛开端增加了3个小时时间，方便队伍下载，阅读，讨论并选择赛题。竞赛于2019年1月25日（星期五）北京时间凌晨6点开始，参赛队可以登录竞赛网站查看赛题。

**2019年竞赛日期和时间**（北京时间）

* 报名期限：2019.1.25 周五凌晨4：00
* 竞赛开始时间：2019.1.25 周五凌晨6:00
* 竞赛结束时间 2019.1.29周二上午9:00
* 邮件提交期限：2019.1.29 周二上午10:00
* 控制页提交期限：2019.2.9 周六上午6:00
* 竞赛结果公布日期：2019.4.29

**IMPORTANT NOTES:**

* **COMAP is the final arbiter of all rules and policies, and may disqualify or refuse to register any team that, in its sole discretion, does not follow these contest regulations and procedures.**
* **Decisions of the judges, the contest directors, and the editor of The UMAP Journal are final.**
* **If a team is caught violating the rules, the faculty advisor will not be permitted to advise another team for one year, and the advisor’s institution will be put on probation for one year.**
* **If a team from the same institution is caught violating the rules a second time, then that school will not be allowed to compete for a period of at least one year.**
* **All times given in these instructions are in terms of Eastern Standard Time (EST). (COMAP is located in the U.S. Eastern Time zone.)**

**重要提示：**

* **COMAP对所有规则和政策具有最终裁决权，任何队伍因单独决断，不遵守竞赛规则和步骤，可能会失去资格或者无法报名。**
* **UMAP杂志的评委，竞赛总监和编辑的决定为最终结果。**
* **如果一个团队违反规定，教职员将不被允许为另一个团队提供一年的建议，而这位指导教师的机构将被放置一年的试用期。**
* **若发现队伍违反规则，指导教师一年之内不允许指导其他队伍，并对指导教师所在学校查看一年。**
* **这些说明中给出的所有时间都是按照东部标准时间（EST）计算的。（COMAP位于美国东部时区。）**

**By submitting an entry, team members agree that:**

* **Their submission and all rights to its publication become the property of COMAP, Inc.**
* **COMAP may use, edit, excerpt, and publish this submission for promotional use or any other purpose, including placing it online, distributing it electronically, or publishing it in The UMAP Journal or otherwise, without compensation of any kind.**
* **COMAP reserves the right to use in materials relating to this contest, the names of the team members, their advisor(s), and their affiliations, without further notification, permission, or compensation.**
	+ **and team members assert that**
* **All images, figures, photographs, tables, and drawings in their submission were either created by the team or else, if reproduced from another source, the submission cites a specific reference for each at its location in the submission.**
* **All direct quotations in the submission are enclosed in quotation marks or otherwise identified as such, with a specific reference cited for each at its location in the submission.**

**通过提交条目，队员同意：**

* **提交的材料和有关出版的所有权利成为COMAP, Inc的财产；**
* **COMAP可以使用、编辑、节选以及出版提交的材料用于宣传或者其他目的，包括发布到网上，传播电子版或者刊登在UMAP期刊或者作他用，不作任何补偿COMAP保留在与本次竞赛相关的材料，队员姓名，指导教师以及所属机构中使用的权利，恕不另行通知，许可或赔偿。**
	+ **队员须声明**
* **提交的所有图片，数据，照片，图表和图纸都是由该队伍创建的，如果来自其他来源，则提交时在每一处引用处都须特别标注。**
* **提交文件中的所有直接引用都用引号或其他方式标明，并需要在提交文件中的每个引用位置标明具体的参考文献。**
* **I. BEFORE THE CONTEST BEGINS:**
* **A. Registration**
* **All teams must be registered before 3PM EST on Thursday, January 24, 2019**. We recommend that all teams complete the registration process well in advance, since the registration system will not accept any new team registrations after the deadline. COMAP will not accept late registrations for MCM/ICM 2019 **under any circumstances**. **NO EXCEPTIONS WILL BE MADE**.
* 1.      **Register your team online via the contest web site**: Go to [**https://www.comap.com/undergraduate/contests/mcm**](https://www.comap.com/undergraduate/contests/mcm).
* a.   If you are registering your first team for this year’s contest, click on **Register for Contest** on the left-hand side of the screen.
Enter all the required information, including your email address and contact information.
**IMPORTANT:** Be sure to use a valid and current email address so that we can use it to contact you at any point before, during, and after the contest, if necessary.
* b.   If you have already registered a team for this year’s contest and want to register a second team, click on **Advisor Login**, then log in with the same email address and password that you used when you registered your first team. Once you’re logged in, click on **Register Another Team** near the upper right corner of the page, then follow the instructions there. **There is no restriction on the number of teams an advisor can register.**
* 2.      **Registration Fee**
* A $100 registration fee per team is required.
* We accept payment with Mastercard or Visa only via our secure web site. We cannot accept other forms of payment. Our secure site will process your credit card payment, so your credit card number is protected. Our system will not store your credit card number after it processes your payment.
* 3.      After we receive approval from your financial institution (this takes only a few seconds), the system will issue a control number for your team. Your team is not officially registered until you have received a team **control number**. **Print the page that displays your team control number: It is your only confirmation that your team has been registered.** This page also lists the email address and password that you entered when registering; you will need this information to complete the contest procedures.
* You will **NOT** receive an email confirmation of your registration.
* 4.       If you need to change any of the information (name, address, contact information, etc.) that you specified when you registered, you can do so at any point before or during the contest by logging in to the contest web site with the same email address and password that you used when registering (click on the **Advisor Login** link on the left side of the screen). Once logged in, click on the **Edit Advisor or Institution Data**link near the upper right corner of the page.
* 5.      Check the contest web site regularly for any updated instructions or announcements about the contest. Except in extreme circumstances, COMAP will not send any confirmation, reminders, or announcements by email. All communication regarding the contest will be via the contest web site.
* 6.      You will return to the contest web site during the contest to enter and confirm information about your team, and to print/download out your team’s Control Sheet and Summary Sheets, which you will use when preparing your team’s solution. Details on these steps follow in the instructions below.
* **B. Choose your team members:**
* 1.      You must choose your team members **before the contest begins at 5PM EST on Thursday January 24, 2019**. Once the contest begins you may not add or change any team members (you may, however, remove a team member, if he or she decides not to participate).
* 2.      Each team may consist of a maximum of three students. (Teams may consist of 1, 2, or 3 students).
* 3.      Each student may participate on only one team.
* 4.      Team members must be enrolled in school at the time of the contest, but they need not be full-time students.
* 5.   Team members must be enrolled at the same school as the advisor and other team members.
* 6.   Team members must be enrolled at the same school. (No exceptions will be made).
* 7.   Team members must be undergraduate students postgraduate students are not allowed.

**一，竞赛开始前：**

**A.报名**

**所有参赛队必须在2019年1月24日星期四美国东部时间下午3点（北京时间2019年1月25日周五凌晨4点）之前报名**。我们建议所有团队提前完成报名过程，因为报名系统在截止日期之后不会接受任何新的团队报名。**在任何情况下，** COMAP都不接受MCM / ICM 2019的逾期报名。**概无特例**。

1.       **通过竞赛网站在线报名你的团队**：访问[**http://www.comap.com/undergraduate/contests/mcm**](http://www.comap.com/undergraduate/contests/mcm)。

 a.如果你正在为参加今年竞赛的第一支队伍报名，请点击屏幕左侧的**报名竞赛**。
输入所有必需的信息，包括你的电子邮件地址和联系信息。
**重要提示：**请务必使用可访问的常用邮箱，以便我们可以在赛前、赛中或是赛后的任何时候通过此地址与你联系。

b. 如果你已经为今年的竞赛报名了一支队伍，并想要报名第二支队伍，请点击“ **指导教师登录（Advisor Login）”**，然后使用你第一次报名时的邮箱和密码再次登录。登录后，点击页面右上角附近的**报名其他队伍**，再按提示操作。**指导教师可以报名的队伍数量没有限制。**

2.      **报名费**

每个团队需要支付100美元的报名费。

我们只接受通过我们安全的网站付款的Master卡或Visa卡。不接受其他形式的付款。我们的安全网站将检测你的信用卡付款过程，所以你的信用卡卡号是受保护的。我们的系统在处理你的付款后不会储存你的卡号。

3.      收到银行确认信息后（只需要几秒），系统将为你的团队生成一个控制编号。直到你收到团队**控制编号**，队伍才报名成功。 把印有该号的页面打印出来：这是你队伍报名的唯一凭证。页面带有报名时的邮箱和密码，这些信息用来完成报名过程。此页面还列出了你报名时的电子邮箱和密码; 你将需要这些信息来完成报名过程。

你**不会**收到确认报名的电子邮件。

4.       如果你需要更改你在报名时指定的任何信息（姓名，地址，联系信息等），你可以在竞赛前或竞赛期间的任何时间通过报名时的邮箱密码进行登录（单击屏幕左侧的“ **指导教师登录”**链接）。登录后，点击页面右上角的**编辑指导教师或学校数据**链接。

5.      定期检查竞赛官网，以获取有关竞赛的最新说明或公告。除特殊情况外，COMAP不会通过电子邮件发送任何确认，提示信息或声明。所有竞赛相关的信息都将通过竞赛网站发布。

6.      竞赛期间需要再次访问竞赛网站，确认队伍信息，并打印/下载你队伍的控制页及摘要表，在后续撰写论文时会需要使用这些表。有关这些步骤的详细信息请参阅下面的说明。

**B.选择你的队员：**

1.       **竞赛开始时间为2019年1月24日星期四美国东部时间下午5点（2019年1月25日北京时间周五凌晨6点）之前，**必须选好队员。一旦竞赛开始，你不得添加或更改任何队员（但是，如果所选队员决定不再参赛，可以将其移除）。

2.      每个队伍最多可以由三名学生组成。（1名，2名或3名学生均可）。

3.      每个学生只能参加一个队伍。

4.      队员必须在竞赛时已经登记入学，但不必是全日制学生。

5.队员必须与指导教师和其他队员必须来自于同一所学校。

6.队员必须在同一所学校报名（概无例外）。

7.队员必须是本科生，不得为研究生。

**II. AFTER THE CONTEST BEGINS:**

**A. View the contest problems via the contest web site:**

Teams can view the contest problems via the contest web site **when the contest begins at 5PM EST on Thursday January 24, 2019:**

1.      The contest problems will become available precisely at 5PM EST on Thursday January 24, 2019; team members can view them by visiting [**https://www.comap.com/undergraduate/contests/mcm**](https://www.comap.com/undergraduate/contests/mcm). No password will be needed to view the problems; simply go to the contest web site at or after 5PM EST on Thursday, January 24, 2019 and you will see a link to view the problems.

2.   The contest problems will become available precisely at 4:50PM EST on Thursday January 24, 2019 on the following mirror sites:
[**http://www.comap-math.com/mcm/index.html**](http://www.comap-math.com/mcm/index.html)
[**http://www.mathismore.net/mcm/index.html**](http://www.mathismore.net/mcm/index.html)
[**http://www.mathportals.com/mcm/index.html**](http://www.mathportals.com/mcm/index.html)
[**http://www.immchallenge.org/mcm/index.html**](http://www.immchallenge.org/mcm/index.html)
If you cannot access any of the sites, there may be a problem with your local Internet connection. Contact your local Internet service provider to resolve the issue.

**B. Choose a problem:**

Each team may choose any one of the six problem choices and should submit a solution to only one problem.

**•     MCM problems are Problem A, Problem B or Problem C.**

**•     ICM problems are Problem D, Problem E or Problem F.**

**C. Teams prepare solutions:**

1.      Teams may use any inanimate source of data or materials: computers, software, references, web sites, books, etc. ALL SOURCES USED MUST BE CREDITED. Failure to credit a source will result in a team being disqualified from the competition.

2.      Team members may not seek help from or discuss the problem with their advisor or anyone else, except other members of the same team. Input in any form from anyone other than student team members is strictly forbidden. This includes email, telephone contact, and personal conversation, communication via web chat or other question-answer systems, or any other form of communication.

3.      Partial solutions are acceptable. There is no passing or failing cut-off score, and numerical scores will not be assigned. The MCM/ICM contest judges are primarily interested in the team’s approach and methods.

4.      **Summary Sheet:** The summary is an essential part of your MCM/ICM paper. The judges place considerable weight on the summary, and winning papers are often distinguished from other papers based on the quality of the summary.

To write a good summary, imagine that a reader will choose whether to read the body of the paper based on your summary: Your concise presentation in the summary should inspire a reader to learn about the details of your work. Thus, a summary should clearly describe your approach to the problem and, most prominently, your most important conclusions.  Summaries that are mere restatements of the contest problem, or are a cut-and-paste boilerplate from the Introduction are generally considered to be weak.

**Besides the summary sheet as described each paper should contain the following sections:**

* + **Restatement and clarification of the problem:** State in your own words what you are going to do.
	+ **Explain assumptions and rationale/justification:** Emphasize the assumptions that bear on the problem. Clearly list all variables used in your model.
	+ **Include your model design and justification** for type model used or developed.
	+ **Describe model testing and sensitivity analysis**, including error analysis, etc.
	+ **Discuss the strengths and weaknesses** of your model or approach.

5.      The judges will evaluate the quality of your writing in the Solution Paper:

        Conciseness and organization are extremely important.

        Key statements should present major ideas and results.

        Present a clarification or restatement of the problem, as appropriate.

        Present a clear exposition of all variables, assumptions, and hypotheses.

        Present an analysis of the problem, including the motivation or justification for the model that is used.

        Include a design of the model.

        Discuss how the model could be tested, including error analysis and stability (conditioning, sensitivity, etc.).

        Discuss any apparent strengths or weaknesses in your model or approach.

6.      Papers must be typed in English, with a readable font of at least 12 point type.

7.      The solution must consist entirely of written text, and possibly figures, charts, or other written material only. No non-paper support materials such as computer files or software will be accepted.

8.      **The Solution Paper must display the team control number and the page number at the top of every page**; for example, use the following page header on each page:

Team # 321                        Page 6 of 13

9.      The names of the students, advisor, or institution should NOT appear on any page of the electronic solution. The solution should not contain any identifying information other than the team control number.

10.      Failure to adhere to any preparation rule is grounds for team disqualification.

**D. Advisor Login: Choose a Problem and Print Control Sheet:**

After the contest begins at 5PM EST on Thursday January 24, 2019, and while the teams are preparing their solutions, the advisor should:

1.      Login to the contest web site (go to [**https://www.comap.com/undergraduate/contests/mcm**](https://www.comap.com/undergraduate/contests/mcm/login.php). Click on **Advisor Login**, then enter your email address and password).

2.      If you have not done so already enter the team member names and confirm that each name is spelled correctly. **This determines how the names will appear on the contest certificates. COMAP will not make any changes or reprint certificates for any reason.**

3.      Specify the problem that your team has chosen to solve.

4.      Print/Download one copy of the Control Sheet.

5.      Download or copy the team Summary Sheet. (This should be used as the first page of your electronic email submission.)

**II。竞赛开始后：**

**A.通过竞赛网站查看竞赛赛题：**

**2019年1月24日（星期四）美国东部时间下午5点（2019.1.25 北京时间凌晨6点）竞赛开始时，参赛**队可以通过竞赛网站查看竞赛赛题**：**

1.      竞赛赛题将于2019年1月24日星期四美国东部时间下午5点**（2019.1.25北京时间凌晨6点）**正式公布 ; 队员可以通过访问[**http://www.comap.com/undergraduate/contests/mcm**](http://www.comap.com/undergraduate/contests/mcm)查看。查看赛题不需要密码; 只需在2019年1月24日星期四美国东部标准时间下午5点**（2019.1.25 北京时间凌晨6点）**或之后进入竞赛网站，你将看到赛题的链接。

2.   竞赛赛题将于2019年1月24日星期四下午4点50分**（2019.1.25 北京时间凌晨5点50分）**在下列镜像网站上公布：[**http:**](http://www.mathismore.net/mcm/index.html)
[**//www.comap-math.com/mcm/index.html**](http://www.comap-math.com/mcm/index.html)
[**http：//www.mathismore .net / mcm / index.html**](http://www.mathismore.net/mcm/index.html)
[**http://www.mathportals.com/mcm/index.html**](http://www.mathportals.com/mcm/index.html)
[**http://www.immchallenge.org/mcm/index.html**](http://www.immchallenge.org/mcm/index.html)
如果你无法访问任何网站，可能是本地网络连接出现赛题。联系你当地的网络服务提供商来解决赛题。

**B.选择一个赛题：**

每个团队可以选择六个赛题中的任何一个，并且只能向这一个赛题提交解决方案。

**•      MCM赛题是赛题A，赛题B或赛题C**

**•      ICM赛题是赛题D，赛题E或赛题F.**

**C.小组准备解决方案：**

1.      团队可以使用任何非生命的数据或资料来源：计算机，软件，参考资料，网站，书籍等。所有使用的来源必须为被授权过的。未能声明引用资料出处将导致队伍被取消竞赛资格。

2.      参赛队伍成员不允许向指导教师或本队成员以外的其他成员求助或讨论赛题，严禁与本队伍以外的人进行任何形式的接触，包括电子邮件、电话、私人交谈、网络聊天或其他任何问答系统，以及其他任何形式的交流。

3.     不完整的论文是可以被接受的，竞赛不存在通过或不通过的分数，也没有数字形式的分数，MCM/ICM主要依据参赛队伍的方案和思路进行评判。

4.       摘要表：摘要表是你的MCM / ICM文件的重要组成部分。在评判过程中，摘要占据了相当大的一部分，获奖论文之所以能够从众多论文中脱颖而出就是因为其摘要的质量。

**优秀的摘要可以让读者仅通过阅读摘要就能决定是否要继续阅读论文的正文部分。如此，摘要就必须明确阐述解决问题的方法以及显著的展现出对于问题的最重要结论。简单重复赛题或者从引言中复制粘贴的摘要是没有竞争力的。**

除以上所提摘要格式外，每篇论文还应包括以下部分：
•问题重述：用自己的话说明将要解决的问题。
•解释假设以及基本原理/理由：重点陈述在解决问题中提出的假设。明确的列出在所有模型中应用到的变量。
•对于已使用过的应用到的模型的构建与证明。
•解释模型检验以及敏感性分析，包括误差分析等。
•论述自身模型或方法的优缺点。

5.      评委将通过以下方面来评估论文质量：

        简洁性和结构性是非常重要的。

        主要结论应该表达出主旨和结果。

        酌情予以适当简化或重述赛题。

        清楚地说明所有变量，猜想和假设。

        对赛题进行分析，包括所使用模型的动机或理由。

        包含模型的设计。

        讨论如何测试模型，包括错误分析和稳定性（使用条件，灵敏度等）。

        讨论你的模型或方法中的任何明显的优势或劣势。

6.      论文必须用英文输入，字体至少为12号。

7.      论文必须完全由文字形式以及可能的图表或其他书写材料完成。不接受非论文形式的材料，如计算机文档或软件。

8.     **论文每页顶部需要有团队控制号和页码** ; 例如，在每个页面上使用以下页眉：

团队321＃                        第6页13

9.      学生，指导教师或学校的名字不应出现在电子版论文的任何页面上。论文不应包含团队控制编号以外的任何身份识别信息。

10.      不遵守以上原则的团队将被取消资格。

**D.指导教师登录：选择赛题和打印控制表：**

竞赛于2019年1月24日星期四美国东部时间下午5点开始（北京时间2019年1月25日周五上午6:00）， 当队伍正在准备解决方案时，指导教师应该：

1.      登录竞赛网站（访问**[http://www.comap.com/undergraduate/contests/mcm](http://www.comap.com/undergraduate/contests/mcm/login.php)**。点击**指导教师登录**， 然后输入你的电子邮件地址和密码）。

2.      输入队员姓名，并确认拼写正确。**这决定了名称如何出现在竞赛证书上。COMAP不会因任何原因进行任何更改或重新打印证书。**

3.      指定你的团队选择解决的赛题。

4.      打印/下载控制页的一个副本。

5.      下载或复制团队摘要页。（此页应作为你电子邮件提交的第一页。）

**III. BEFORE THE CONTEST ENDS:**

**A. Send electronic copy of Solution Paper by email:**

1.      Each team is required to submit an electronic copy of its solution paper by email to**solutions@comap.com**. Any team member or the advisor may submit this email.

a.   **Your email MUST be received at COMAP by the email submission deadline of 9PM EST on January 28, 2019.**

b.   Failure by a team to submit a solution via email by **9PM EST on January 28, 2019** constitutes a violation of the contest rules and will result in that team’s disqualification.

c.   No further modifications, enhancements, additions, or improvements may be made to the team’s solution paper after 8PM EST on January 28, 2019. Any changes to the solution will constitute a violation of the contest rules and may result in disqualification.

2.      In the subject line of your email write: your team’s control number. For example:

Subject:  **1900000**

3.      Use your team’s control number as the name of your file attachments.

4.      COMAP will accept only a **Adobe PDF**of your solution. DO NOT include your Control Sheet, programs or software with your email as they will not be used in the judging process. Limit one solution per email. **The names of the students, advisor, or institution should NOT appear on any page of the electronic solution**. Your team's summary should be included as the first page of your file. **\*Note: The attachment must be less than 17MB.**
**!! Do not use a cloud service such as Google Docs your email must contain a Adobe PDF attachment.**

5.      See the rules for submitting the signed Control Sheet via email below.

**III。竞赛结束前：**

**A.通过电子邮件发送“电子版论文”**

1.      每个团队需要通过电子邮件发送电子版论文到 **solutions@comap.com**。任何队员或指导教师可以提交此电子邮件。

a.**必须在2019年1月28日美国东部时间晚上9点（北京时间2019年1月29日上午10:00）前以电子邮件形式发送给COMAP.**

b. **2019年1月28日美国东部时间晚上9点（北京时间2019年1月29日上午10:00）** 以前，团队未通过电子邮件提交论文的，按违反竞赛规则处理，并取消该队伍的资格。

C。   2019年1月28日美国东部标准时间晚上8点**（北京时间2019年1月29日上午9:00）**以后，团队的论文不得再做任何修改，增强，增加或改进。对解决方案的任何更改都将违反竞赛规则，并可能导致取消资格。

2.    **邮件题目标注：队伍控制号**。例如：

主题：  **1900000**

3.      使用你的团队的控制编号作为你的文件附件的名称。

4.      COMAP将只接受你的解决方案的**Adobe PDF**文件。不要将你的控制表，程序或软件包含在你的电子邮件中，因为它们在评审过程中不会被使用。每个邮箱发送一篇论文。**学生，指导教师或学校的名字不应出现在电子版论文的任何页面上**。你的团队的摘要页应该被包括在你的文件的第一页。 **\*注意：附件必须小于17MB。**
**！不要使用Google文档等云服务，你的电子邮件必须包含Adobe PDF附件。**

5.      通过电子邮件提交签名控制表，规则参阅下方。

**IV. WHEN THE CONTEST ENDS:**

**A. Prepare Control Sheet:**

**When the contest ends at 8PM EST on January 28, 2019:**

1.      Each team member must sign the Control Sheet to pledge that he or she abided by the contest rules and instructions.

\*Note you are not required to mail a print copy of your Solution Paper or Control Sheet.

**B. Email The Signed Control Sheet:**

1.   **Send the signed Control Sheet by email to COMAP:**
After the signed control sheet is prepared, email it to: **forms@comap.com**. In the subject line of your email write: your team's control number. For example: **1900000**. COMAP will accept only an Adobe PDF or a Photo Image of your control sheet. Limit one set of forms per email. Teams may take pictures of the signed forms with a phone or digital camera and then email the images to **forms@comap.com**. \*Note: The attachment must be less than 17MB.
(Note you are not required to mail a print copy of your Control Sheet.) **!! Do not use a cloud service such as Google Docs your email must contain a Adobe PDF or Photo Images.**

The Control Sheet must be received by COMAP no later than 5:00 PM EST on Friday, February 8, 2019. COMAP is not responsible for contest forms received after that date.

**IV。竞赛结束时：**

**A.准备控制表：**

**竞赛于2019 年 1月28日美国东部时间下午8点结束：**

1.      每个队员必须在控制表上签字以保证他或她 遵守竞赛规则和指示。

\*请注意，你不需要邮寄“解决方案纸”或“控制页”的打印副本。

**B.电子邮件签名的控制表：**

1.    **通过电子邮件将已签名的控制表发送给COMAP：**
在签名的控制表准备好后，将其发送至：forms@comap.com。在你的电子邮件的主题行中写入：你的团队的控制编号。例如：**1900000**。COMAP将只接受控制表的Adobe PDF或照片图像。限制每个电子邮件的一组表单。团队可以用手机或数码相机拍下签名表格的照片，然后通过电子邮件发送到forms@comap.com。\*注意：附件必须小于17MB。
（请注意，你不需要邮寄控制页的打印副本。）**！不要使用Google文档等云服务，你的电子邮件必须包含Adobe PDF或照片图像附件。**

COMAP不迟于美国东部标准时间2019年2月8日星期五下午5:00收到控制页。COMAP不负责在该日期之后收到的竞赛表格。

**V. AFTER THE CONTEST IS OVER:**

**A. Confirm that your team’s solution was received:**

1.      You may login to the contest web site using the **Advisor Login** link to verify that your team’s Electronic Solution was received at COMAP.

**B. Check contest results:**

1.      **Judging:**Judging will be completed in March and the results will be posted on April 29, 2019. The Solution  Papers will be recognized as Disqualified, Unsuccessful, Successful Participant, Honorable Mention, Meritorious, Finalist, or Outstanding Winner.

2.      We will post the contest results on the web site as soon as they are available, so visit the contest web site regularly to check for updates. It will take several weeks for the judges to evaluate the solutions and for COMAP to process the results. Please do NOT call or email COMAP regarding contest results.

**C. Prizes/Certificates**:

**五，竞赛结束后：**

**A.确认你的团队的解决方案已收到：**

1.      你可以使用“ **指导教师登录”**链接登录竞赛网站，以确认你的团队的电子版论文已被COMAP收到。

**B.检查竞赛结果：**

1.       **判断：**评审将于3月份完成，结果将于2019年4月29日公布。 奖项分为：不合格参赛者、不成功参赛者、成功参赛者，荣誉奖，优秀奖，决赛奖或杰出奖。

2.     网站会第一时间公布竞赛结果，请经常访问官网查看更新。评委评审论文需要几周时间，COMAP 公布结果，请不要打电话或发电子邮件给COMAP询问竞赛结果。

**C.奖品/证书**：


该**两个西格玛奖学金**将颁发给两位顶级MCM / ICM美国队; 每队10000美元，队员1000美元，学校代表1000美元。奖项将于每年4月30日左右公布。 结果发布后，每位成功参赛的小组指导教师和学生将获得参与证书。你可以使用“ **指导教师登录”**链接登录竞赛网站查看和打印团队的证书。所有国际队将只收到电子（PDF）证书。在竞赛结果发布到竞赛网站后，美国队应该允许几个星期才能收到你的打印证书。[点击这里下载MCM / ICM证书。](http://www.comap.com/Certform/index.html)



* **MCM奖（赛题A，B和C）**
* 本Fusaro奖将被赋予一个特别有创意的文件，并将从竞赛入围者中选出。
* Frank R. Giordano奖于2012年开始授予。Gen.（ret）弗兰克·乔丹诺（Frank Giordano），他指导了MCM 20年。这个奖项发表在一个文件，表明真正的卓越执行建模过程。
* **ICM奖（赛题D，E和F）**
* 莱昂哈德·欧拉奖提交给由ICM的赛题D的首席法官选定的一个团队。标准是：1）优秀/入围/出色评级的论文; 2）包含特别创意和创新的造型; 3）对跨学科科学有了很好的理解。这个奖项是一位18世纪的瑞士应用数学家的名字，他以其研究应用的广度，书面作品的数量，优秀的教学和跨学科性而闻名。
* 雷切尔·卡森奖是一位美国环保主义者的“寂静的春天”发起的全球环境运动，其工作跨越了许多与当地和全球环境有关的学科。该奖项颁发给由ICM Problem E首席法官选定的团队，以便在建模中使用科学理论和数据。
* Vilfredo Pareto是意大利学者，建模者和赛题解决者，曾多次担任工程师，社会学家，经济学家，政治学家，数学家和哲学家。他在十九世纪末和二十世纪初期生活和工作。ICM帕累托奖在政策建模赛题（ICM赛题F）中杰出的建模奖表彰这位着名的社会科学赛题解决者的工作和遗产。特别是对于这个奖项，首席法官试图突出一篇文章，最好地模拟更加动态和具有挑战性的人文元素，使政策模型的简化或改进变得如此困难。


运筹学与管理科学研究所（INFORMS）是运筹学（OR），管理科学（MS）和分析领域的专业人士的世界上最大的社会。INFORMS长期以来一直认识到让本科生和教师参与一个没有脚本的数学建模过程的重要性，这个数学建模的赛题包含了其成员所看到的许多现代元素。MCM / ICM例证了这些特征。因此，INFORMS自成立以来一直是MCM / ICM的积极支持者。

INFORMS从A，B，C，D，E，F六个赛题的每一个中仔细挑选和指定一个杰出的团队作为INFORMS杰出的成功团队，他们的建模和分析最能体现其会员专业实践中体现的风格和内容。每位学生都会收到现任INFORMS主席的祝贺信和一年免费的INFORMS学生会员资格。每位相关的教师指导教师都会收到现任INFORMS总裁的祝贺和赞赏，并免费获得一整年获奖的INFORMS全套期刊。


工业和应用数学协会（SIAM）将指定一个来自MCM赛题A和B的杰出团队作为SIAM的获胜者。获奖团队的每名学生将在SIAM获得500美元的现金奖励和3个一年级的学生会员资格。主办机构的证书将给予获奖队伍的教员指导教师。


美国数学协会（MAA）将指定MCM的两个杰出团队作为MAA获奖者。获奖团队的每名学生将获得一份证书。MAA会将团队差旅费用部分报销给Math Fest，以便他们可以出示他们的纸张。


美国统计协会（ASA）将指定一个来自MCM Problem C的杰出团队作为ASA获胜者。