



2009 World Finals hosted by KTH  
**acm** International Collegiate  
Programming Contest



event  
sponsor



**FACT SHEET – Final Edition – 10 April 2009**

**The ACM International Collegiate Programming Contest  
sponsored by IBM and hosted by KTH – Royal Institute of Technology**

### *About the Contest*

The ACM International Collegiate Programming Contest (ICPC) traces its roots to a competition held at Texas A&M in 1970 hosted by the Alpha Chapter of the UPE Computer Science Honor Society. The idea quickly gained popularity within the United States and Canada as an innovative initiative to challenge the top students in the emerging field of computer science.

The contest evolved into a multi-tier competition with the first Finals held at the ACM Computer Science Conference in 1977. Operating under the auspices of ACM and headquartered at Baylor University since 1989, the contest has expanded into a global network of universities hosting regional competitions that advance teams to the ACM-ICPC World Finals.

Since IBM became sponsor in 1997, the contest has increased by 746 percent. Participation has grown to involve several tens of thousands of the finest students and faculty in computing disciplines at 1,838 universities from 88 countries on six continents.

The contest fosters creativity, teamwork, and innovation in building new software programs, and enables students to test their ability to perform under pressure. Quite simply, it is the oldest, largest, and most prestigious programming contest in the world.

The annual event is comprised of several levels of competition:

- *Local Contests* – Universities choose teams or hold local contests to select one or more teams to represent them at the next level of competition. Selection takes place from a field of over 300,000 students in computing disciplines worldwide.
- *Regional Contests* (September to December 2008) – This year, participation increased from 6,700 to 7,109 teams representing 1,838 universities from 88 countries on six continents, competing at 259 sites.
- *World Finals* (April 18-21, 2009, Stockholm) – One hundred (100) world finalist teams will compete for awards, prizes and bragging rights in Stockholm hosted by KTH – Royal Institute of Technology. These teams represent the best of the great universities on six continents - the cream of the crop.

### *Battle of the Brains*

The contest pits teams of three university students against eight or more complex, real-world problems, with a grueling five-hour deadline. Huddled around a single computer, competitors race against the clock in a battle of logic, strategy and mental endurance.

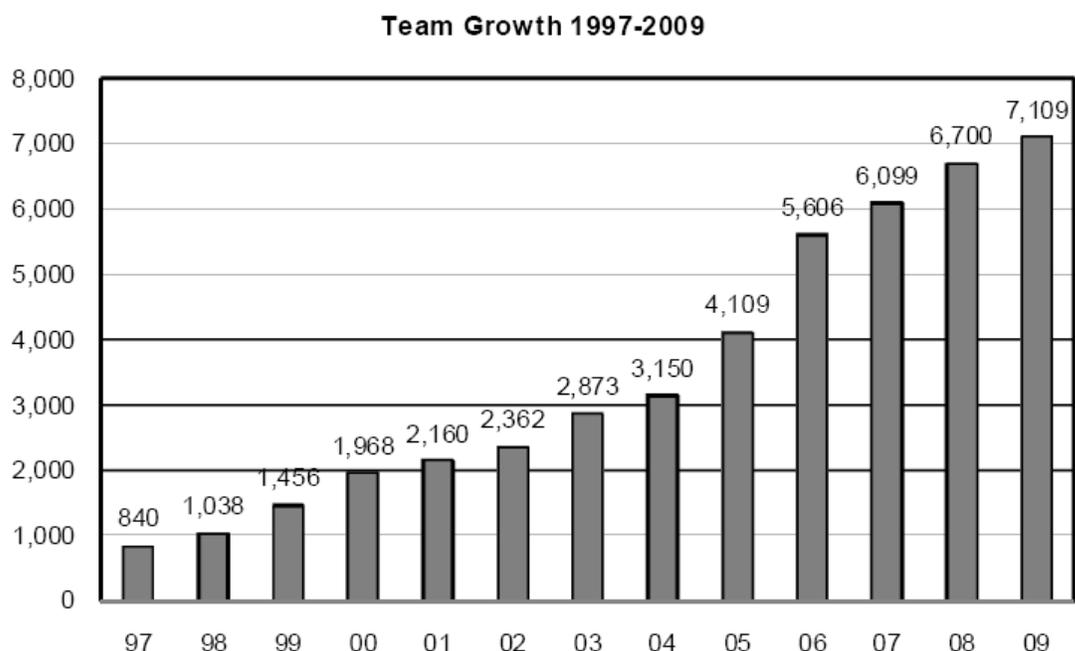
Teammates collaborate to rank the difficulty of the problems, deduce the requirements, design test beds, and build software systems that solve the problems under the intense scrutiny of expert judges. For a well-versed computer science student, some of the problems require precision only. Others require a knowledge and understanding of advanced algorithms. Still others are simply too hard to solve – except, of course, for the world's brightest problem-solvers.

Judging is relentlessly strict. The students are given a problem statement – not a requirements document. They are given an example of test data, but they do not have access to the judges’ test data and acceptance criteria. Each incorrect solution submitted is assessed a time penalty. You don’t want to waste your customer’s time when you are dealing with the supreme court of computing. The team that solves the most problems in the fewest attempts in the least cumulative time is declared the winner.

To learn more about the ICPC, please visit <http://acmicpc.org> or <http://icpc.baylor.edu/> . Visit the ICPC podcast series at <http://battleofthebrains.podbean.com> for insights from past contestants and current IBM executives.

### **Contest Growth**

ACM, IBM, and Baylor University are thrilled that the contest continues to attract the best and brightest students from around the world, with tens of thousands of participants on 7,109 teams representing 1,838 universities in 88 countries. Since the beginning of IBM’s sponsorship in 1997, participation has increased by 746 percent. For more information on previous contests, and last year’s final standings and problem sets, please see <http://icpc.baylor.edu/> or <http://www.ibm.com/university/acmcontest/> .



### **World Finals 2009 – the final round for the 2008 Regionals**

One hundred (100) teams from regional contests servicing universities worldwide will qualify to advance to the World Finals to be held in Stockholm, Sweden, April 18-21. The World Finals is hosted by KTH – Royal Technical University. Recent medal winners in order of finish are:

- 2008 Gold: St. Petersburg University of Information Technology, Mechanics, & Optics (Russia)  
Massachusetts Institute of Technology (U. S. A.)  
Izhevsk State Technical University (Russia)  
Lviv National University (Ukraine)
- 2007 Gold: Warsaw University (Warsaw, Poland)  
Tsinghua University (Beijing, China)  
St. Petersburg University of Information Technology, Mechanics & Optics (Russia)  
Massachusetts Institute of Technology (U. S. A.)
- 2006 Gold: Saratov State University (Saratov, Russia)  
Jagiellonian University (Krakow, Poland)  
Altai State Technical University (Barnaul, Russia)  
University of Twente (Enschede, The Netherlands)

- 2005 Gold: Shanghai Jiao Tong University (Shanghai, China)  
Moscow State University (Moscow, Russia.)  
St. Petersburg Institute for Fine Mechanics & Optics (St. Petersburg, Russia)  
University of Waterloo (Waterloo, Ontario, Canada)

### ***About ACM***

The Association for Computing Machinery (ACM) is a major force in advancing the skills of information technology professionals and students. ACM serves its global membership of 80,000 by delivering cutting edge technical information and transferring ideas from theory to practice. ACM hosts the computing industry's leading Portal to Computing Literature. With its journals and magazines, special interest groups, conferences, workshops, electronic forums, Career Resource Centre and Professional Development Centre, ACM is a primary resource to the information technology field. For more information, see <http://www.acm.org>.

### ***IBM's Commitment***

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a company-wide effort to advance the next generation of technology leaders and problems solvers who have combined skills of computing science and business management. For more information, visit <http://www.ibm.com/university/acmcontest/>

### ***About IBM***

IBM believes intelligence will change more aspects of human life, including the way people live, work, and govern themselves; the way services are ordered and delivered; and the way air, water and forests are protected. The world is already connected economically, technically and socially. However, being connected alone is not sufficient. The world needs new generations of talent, problem solvers and leaders to infuse intelligence into our life such as power grids, transportation, and food safety.

IBM is the world's largest information technology and service provider. IBM has 30,000 software engineers in more than 80 research and development laboratories around the globe, who focus on solving real-world business issues for customers in more than 170 countries. IBM offers software services and dynamic infrastructure for customers to manage their systems, processes and applications across standard platforms. IBM has customers in industries such as telecommunications, utility, retail, public service, health care, education, transportation, finance, insurance, petroleum, manufacturing, etc. IBM explores new services using technology such as Web 2.0, virtualization, social networking, RFID, and cloud computing for new enterprise data centers. For more information, visit <http://www.ibm.com/software>.

### ***KTH – Royal Institute of Technology Commitment***

KTH is pleased to host the 2009 World Finals at the finest venues of Stockholm. From luxury hotels - the Grand Hotel, Strand Hotel, and Diplomat – on to the Opening Session at historic Stockholm Town Hall, and completing the World Finals to the Awards Ceremony at the Concert Hall, where Nobel Prizes are awarded, KTH is committed to bringing the finest of Swedish hospitalities to the 2009 World Finals. KTH is pleased to host the World Finals at her library. For more on KTH, visit <http://icpc09.csc.kth.se/>

### ***Upsilon Pi Epsilon's Commitment***

The Upsilon Pi Epsilon International Computer Science Honor Society recognizes the best students of computer science and engineering in the world. Since its earliest participation, the UPE has provided support and scholarships to the World Finals teams. The UPE boasts the longest continuous relationship to the ICPC, dating back to 1970 with the first event held at Texas A&M by members of the Alpha Chapter of the UPE. For more information about other UPE activities, its chapters, and its membership click on: <http://www.acm.org/upe/>.

### ***Baylor University's Commitment***

Baylor University has been the home of the ICPC since the late 1980s, where it has been managed under the direction of Executive Director and Professor, Dr. William B. Poucher. The ICPC contributes to Baylor's global mission to encourage the next generation to develop and apply their problem-solving talents to the challenges that face the world today and the world to come. Chartered by the Republic of Texas, Baylor is the oldest institution of higher learning in the State of Texas. You may find more about Baylor at <http://www.baylor.edu/>.

## **The 2009 ACM-ICPC World Finals List by Regions (In alphabetical order by region)**

### **Africa**

#### **Egypt**

Arab Academy for Science and Technology  
German University in Cairo

#### **South Africa**

University of Cape Town

### **Asia**

#### **Bangladesh**

Bangladesh University of Engineering and Technology  
North South University  
University of Dhaka

#### **Hong Kong**

Chinese University of Hong Kong  
University of Hong Kong

#### **India**

Bina Nusantara University  
Indian Institute of Information Technology and Management  
International Institute of Information Technology- Hyderabad

#### **Iran**

Amirkabir University of Technology  
Sharif University of Technology

#### **Japan**

Saitama University  
University of Aizu  
University of Tokyo

#### **Mainland China**

Beijing Jiaotong University  
Beijing University of Posts and Telecommunications  
East China University of Science and Technology,  
Fudan University  
Huazhong University of Science & Technology  
Nanjing University  
Peking University  
Shanghai Jiaotong University  
Sichuan University  
South China University of Technology  
Tianjin University  
Tsinghua University  
Wuhan University  
Zhejiang University  
Zhejiang University of Technology  
Zhongshan (Sun Yat-sen) University

#### **Singapore**

Nanyang Technological University  
National University of Singapore

**South Korea**

Korea Advanced Institute of Science and Technology  
Seoul National University

**Taiwan**

National Taiwan University

**Vietnam**

College of Technology  
VNU Hanoi

**Europe****Belarus**

Belarusian State University

**France**

École Normale Supérieure de Lyon

**Georgia**

I. Javakishvili Tbilisi State University

**Great Britain**

University of Cambridge - Trinity College  
University of Oxford

**Poland**

Jagiellonian University in Krakow  
University of Warsaw

**Russia**

Altai State Technical University  
Moscow State University  
Novosibirsk State University  
Saratov State University  
South Ural State University  
St. Petersburg State University  
St. Petersburg University of IT, Mechanics and Optics  
Ural State University

**Spain**

Universitat Politècnica de Catalunya

**Sweden**

KTH-Royal Institute of Technology

**Ukraine**

National Technical University of Ukraine "KPI"  
Taras Shevchenko Kiev National University  
Taurida V.I. Vernadsky National University

**Latin America****Argentina**

Universidad de Buenos Aires – FCEN  
Universidad Nacional de La Plata  
Universidad Nacional del Sur

**Brazil**

Escola Politécnica da Universidade de São Paulo  
Universidade Estadual do Ceará  
Universidade Federal de Pernambuco  
Universidade Federal de Santa Catarina  
Universidade Federal do Espírito Santo  
Universidade Federal do Paraná

**Colombia**

EAFIT University  
Universidad Nacional de Colombia – Bogotá

**Mexico**

ITESM Campus Monterrey  
Instituto Tecnológico de Culiacán  
Universidad Tecnológica de la Mixteca

**North America****Canada**

McGill University  
University of Alberta  
University of British Columbia  
University of Waterloo

**United States of America**

California Institute of Technology  
Carnegie Mellon University  
Cornell University  
Duke University  
Iowa State University  
Massachusetts Institute of Technology  
Northwestern College  
Purdue University  
SUNY Stony Brook  
Stanford University  
University of California - San Diego  
University of California at Berkeley  
University of Central Florida University of Chicago  
University of Illinois - Urbana-Champaign  
University of Maryland  
University of Nebraska - Lincoln  
University of Texas at Austin  
University of Virginia  
University of Wisconsin – Madison  
Washington University in St. Louis

**South Pacific****Australia**

University of Melbourne  
University of Tasmania

**New Zealand**

University of Canterbury