
A BRIEF HISTORY OF ATCM

The Asian Technology Conference in Mathematics (**ATCM**: <http://atcm.mathandtech.org>) was founded by Professor **Wei-Chi Yang**, from Radford University of Virginia, USA. In his paper *Mathematics Education Reform in the East and the West Technology Issues*, Dr. Yang wrote that many issues in mathematics education reform motivated him to initiate this conference. He pointed out that technological tools made significant impact on mathematics teaching and learning in the US, and computer software had influenced ways of teaching and research in higher education. In particular, how to make use of the hardware and software technologies to assist our *teaching* and *research* in mathematics was one of the main purposes of why ATCM was founded.

The very first Asian Technology Conference in Mathematics was hosted by the **National Institute of Education in Singapore** in 1995. The purpose of this conference was to facilitate a series of discussions on the use of computers and related software in mathematics research and teaching among Asian countries. The conference theme was *How can Mathematics Software be used in Research and Teaching Activities*. The conference attracted more than 300 scholars from 22 countries around the world. About 40% of participants were from Singapore and 60% from other countries. More than 80 presented papers were published in the conference proceedings. The conference had wonderful support from participants around the world as well as software and hardware developers.

Since 1997 till 2009, fourteen consecutive ATCM Annual Conferences were hosted by fourteen universities in different countries and regions. They are listed as follows:

- ATCM 1997 was held in Penang (**Universiti of Sains Malaya**), in Malaysia. Topics such as *Distance Learning* and *Teaching with Multimedia Technologies* started appearing.
- ATCM 1998 was held in **University of Tsukuba**, in Japan. Scholars gathered in the University of Tsukuba for the third ATCM conference. Although the conference theme was *Research and Teaching with Computer Algebra Systems (CAS)*, the topic *Computer Assisted Teaching and Learning in Mathematics* was also among the main topics discussed. The topic of *Distance Learning through the World Wide Web* was seriously discussed as well.
- ATCM 1999 was held in Guangzhou Normal University, China, and hosted by Guangzhou Normal University, with the theme of *Applying Scientific and Technological Methods in Mathematics Research and Teaching*. The conference first established the *Best Papers Award*.
- ATCM 2000 was held in Chiang Mai, Thailand, and hosted by **Chiang Mai University**. The major topics for the conference were *Graphics Calculators, Computational Algebra and Geometry, Internet Technology for Mathematics, Machine Learning and Theorem Proving, and Parallel and Distributed Computing and Applications*.
- ATCM 2001 was held in Melbourne, Australia, and was hosted by **RMIT University**. The major topics discussed at this conference included *Implementing Technology in Education from K-12 to University Level, Assessment of Implementation of Technology in Education, and Mathematics and Information Technology*.
- ATCM 2002 was held in Melaka, Malaysia, and hosted by **Multimedia University**. The major theme of the conference was *Multimedia for the Advancement of Mathematics*. At this year's conference,

suggested by the host University, *Multimedia Distance Learning* was added as one of the major topics for discussion. More than 300 scholars attended the conference. The number of participants was about the same as in the previous conferences. More than 90 presented papers were published in the conference proceedings.

- ATCM 2003 was held in Hsin-Chu, Taiwan, and hosted by **Chung Hua University**. This was the very first ATCM conference in Taiwan. Like the hosting universities of the previous ATCM conferences, Chung Hua University made great efforts to make the conference a success. This year's conference attracted experts in this field from all over the world, and provided opportunities for Taiwanese experts in this field to exchange ideas and experiences with the conference attendees. This made clear that ATCM was the most important conference in the field of technology application in mathematics research and teaching in Asia.
- ATCM 2004 was held in Singapore, and hosted by the **National Institute of Education** and Nanyang Technological University. The conference theme was *Technology in Mathematics: Engaging Learners, Empowering Teachers, and Enabling Research*. The conference attracted over 400 participants around the world.
- ATCM 2005 was held in Cheong-Ju, South Korea, and hosted by **Korea National University of Education**. The conference theme was *Enriching Technology in Enhancing Mathematics for All*.
- ATCM 2006 was held in Hong Kong, and hosted by the **Hong Kong Polytechnic University**. The conference theme was *Advancing and Fostering Mathematical Sciences and Education through Technology*.
- The ATCM Conference was conducted in Taiwan for the second time in 2007. At this time ATCM 2007 was hosted by the **National Tsing Hua University**. The conference theme was *Making Mathematics Fun, Accessible and Challenging through Technology*. The number and reputation of the speakers has surpassed the records of all previous conferences. The Electronic Proceedings of ATCM 2007 are now available at this site, <http://atcm.mathandtech.org/EP2007/EP2007.htm>.
- The 13th Asian Technology Conference in Mathematics was held at **Suan Sunandha Rajabhat University**, in Bangkok, Thailand in December 15-19, 2008. Thanks to IPST, MOE and many sponsors, the conference was well attended by over 400 participants representing from over 33 countries around the world. We are sure many of you, who have attended the conference; agree that the conference was indeed both enjoyable and instructive thanks to the hospitality of hosting university.
- The 14th ATCM at the **Beijing Normal University, Beijing, China**, December 17-21, 2009 was a blast, we attracted over 400 participants representing 29 countries. There were lots of interests in the use of technology from school teachers in China. We believe we will come back to China soon.
- The 15th ATCM was hosted by the **University of Malaya, Kuala Lumpur, Malaysia**, December 17-21, 2010. The country is in the process of changing the education curriculum using local languages in addition to English. We hope ATCM 2010 did provide enough guidelines and stress the importance of integrating technology in mathematics teaching and learning for the country.
- The 16th ATCM was hosted by the **Abant İzzet Baysal University, Bolu, Turkey**, September 19-23, 2011. The selection of Turkey is symbolic, it shows the ATCM is not only an international mathematics

and technology conference held in Asia but because of location of the venue, we have attracted many European participants to this event. All in all, attracted over 300 participants from over 25 countries.

We are in the crossroad of integrating evolving technological tools into teaching and research in mathematics. The adoption of technology varies from country to country. Many people wonder if students from some countries did so well in the Program for International Student Assessment (*PISA*), where is the role of technology? Some will say – It is not simply how well students can perform in a test, it is how well they can discover more mathematics (if technological tools are adopted) and enhance their mathematics understanding to a higher level. In addition we believe that making basic knowledge of math and science accessible to more people is essential in any education systems. To this end, creative integration of technological tools into teaching and research should become natural in our teaching and research. To assist local countries and regions, ATCM has launched the local chapter in China of August 2011 and the ATCM-Taiwan will be launched in December of 2011 (<http://atcm.mathandtech.org/Taiwan>).

Come and join us and contribute to the theme of "Creative and Critical Thinking in Mathematics Through Technology" at ATCM 2012 (December 16-20, 2012) in Bangkok, Thailand.

Contributed by ATCM friends

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