

INTRODUCTION TO THE STANFORD GEOTHERMAL WORKSHOP

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ABSTRACT

The 2012 Stanford Geothermal Workshop is the 37th time that the workshop has been held. This short overview will describe the background and the recent history of the workshop.

A BRIEF HISTORY

The first Stanford Geothermal Workshop was held in December 1975, as the brainchild of Prof. Paul Kruger. Paul Kruger was one of the three founders of the Stanford Geothermal Program, the other two being Prof. Henry J. Ramey, Jr., and Prof. Lou London. In 1975, geothermal energy development was in its infancy in the US, but expanding rapidly as a response to the 1973 Energy Crisis. The Department of Energy was just being formed, out of the ashes of ERDA, the Energy Research and Development Agency.

Given the large number of new projects and new researchers turning their expertise to the new field of geothermal energy, Paul Kruger's concept was for a meeting at which researchers and developers could share their nascent ideas and learn from discussions with others while the projects were still in progress. Stanford Workshop papers were intended to be "work in progress" discussions, rather than completed scientific papers. The Stanford Geothermal Workshop was intended to be a proving ground for testing new ideas. It is called a workshop and not a conference for that reason.

The informal style and organization of the Workshop follows this pattern to the present day. The focus on fostering innovative ideas and fruitful discussion is reflected in the "just in time" paper submission and collation process that is used.

The Stanford Geothermal Workshop has served as a prototype for several other annual geothermal meetings around the world.

STATISTICS

Over 37 years the Workshop has evolved. From 1975 until 1995 the meeting had only a single session sequence, and all participants attended every presentation. A lot was learned about topics not usually the daily routine of the audience members. About 40-50 papers were presented each year.

In 1995 the number of papers increased to 70-80, which necessitated the shift to two parallel sessions, often one focusing on engineering and the other on geosciences. In 2011 the number of papers increased dramatically to 147, and the number of parallel sessions increased to three. In 2012 the number of abstracts submitted climbed to 253, and for the first time the Workshop organizers were obliged to reject some abstracts, despite moving to four parallel sessions. The most recent 10 years are illustrated in Figure 1.

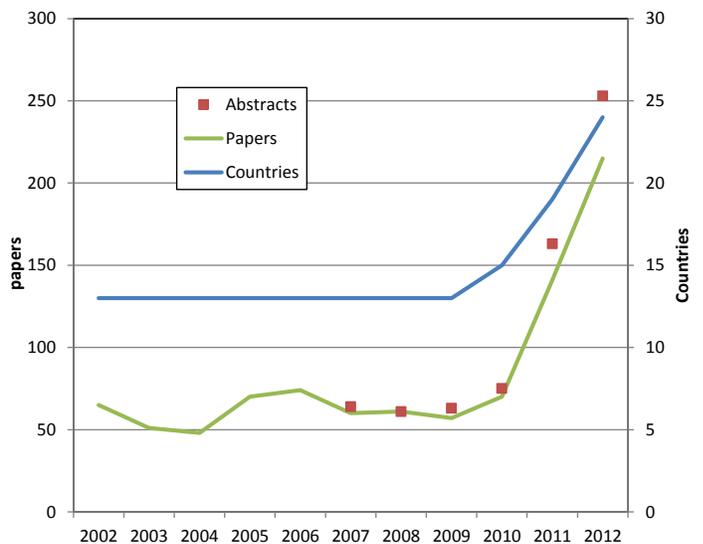


Figure 1: Number of abstracts, final papers, and countries represented over the past 10 years.

PUBLISHING FOR ACCESS

Based on the philosophy of making results and ideas available widely to the geothermal community, the Proceedings of the Workshop have been distributed internationally since the beginning of the event. Until 1999 the proceedings were published first as a preprint volume for use at the Workshop itself, followed by a hard cover volume created over the following two or three months. The hard cover volumes were sent to all participants who had attended the Workshop, as well as to libraries, universities and companies worldwide.

Starting in 1999, the Workshop began to use CD-ROMs to distribute the papers, and discontinued the paper volumes the following year. In 2000, the Stanford Geothermal Program initiated one of the first online collections of geothermal papers, based on the 25 years of Stanford Workshops up to that date. The collection was shared with the international community in collaboration with the International Geothermal Association (which also contributes papers to the collection). In 2012, the total number of papers in the searchable collection is close to 8000.

PAPER AND PEOPLE MANAGEMENT

With a target of encouraging papers that include the most recent results and ideas, the Workshop is organized to minimize the time between submission of papers and their presentation at the Workshop. By use of online submission and a high degree of automation, the paper submission deadline is only 9 days in advance of the workshop. The proceedings volume is collated and indexed, prepared on a CD master and manufactured in time for distribution at the workshop. The full schedule of the technical program is also created automatically, which allows for it to be modified as necessary and shown online immediately.

The automation process depends on reducing the handling of information such as author names, addresses, key words etc. The model is that authors submit their own information, which then migrates throughout the Workshop administration and paper management. This is not only faster, but also more accurate as transcription errors are avoided. But a participant who misspells his own name in his submission will have a misspelled name badge at the Workshop!

In 2012 we have written a new database/web interface for paper and registration management. The program is based on PHP and MySQL. Instead of the flat database we used previously, the 2012 system

separates people from papers, so that (for example) one person can submit multiple papers and associate them all with a single username. This differs from the system used until 2011, in which each record defining a paper also required the full information about the submitting author.

The new system also allows the username to be used in subsequent years, so authors will not have to enter their address and contact information year after year.

By integrating with (third party) registration and payment functions, it has also been possible to link the papers to specific registrations, so that the organizers can have a more accurate idea of which authors will actually attend.

The structure of the process is shown in Figure 2.

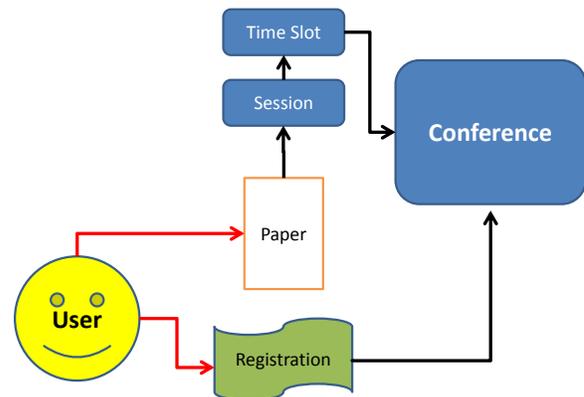


Figure 2: Organization of database structure.

After the initial quirks have been worked out of the software system, the intention is to make it available to other institutions and conference organizers who wish to make use of it.

INFORMATION

If you have any questions concerning your paper and/or the Workshop, please email us: (geothermal@sesmail.stanford.edu); or FAX : 650-725-2099.