

**International Symposium: Fifty Years after IGY  
- Modern Information Technologies and Earth and Solar Sciences -**

November 10 – 13, 2008

Tsukuba, Japan

The International Geophysical Year, IGY (1957-1958) has led to a comprehensive global study of geophysical phenomena and their relationships with solar activity. The IGY greatly expanded our knowledge of global processes, heralded the exploration of geospace, and left a legacy of monumental achievements including the World Data Center (WDC) system. Fifty years on, four new international programs -- International Polar Year (IPY), electronic Geophysical Year (eGY), International Year of Planet Earth (IYPE), and International Heliophysical Year (IHY) -- have been promoted. Efforts for renewal of the international data system such as the WDC and CODATA are also in progress.

On the other hand, the rapid innovation in information technologies such as super computers and ultra-high speed Internet drastically changed the style and themes of research, amount and treatment of data. The new observations and simulations with the cutting-edge technologies are producing huge amount of data. Because of the limitation of handling these data by individual researchers, it is very important for Earth and space sciences, as well as their use for our global society, to develop a cohesive methodology which includes advanced information technologies.

This symposium treated a wide range of topics related to the above mentioned activities, and brought together scientists, data and information specialists, policy makers, and data users from 16 countries with over 160 attendees presenting more than 120 papers in total.

The proceedings contain only a part of the papers presented at the symposium. Although all papers have been reviewed by a simplified referee process, the readers should note that these papers are for conference proceedings rather than normal research papers in *Data Science Journal*.

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