38th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The Next Steps (A4)
SETI I : SETI Science and Technology (1)

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THE SETI PROGRAMS IN KOREA: PROGRESS REPORT

Abstract

We have recently launched several pioneer SETI projects and succeeded in including the SETI programs as a part of main events for the 2009 International Year of Astronomy (IYA2009) in Korea. In this paper, we report some results from the SETI projects in Korea.

A new 7m public radio telescope has recently been constructed at the Gwacheon National Science Museum. It works for 1.42 and 22 GHz, and is equipped with one million channel SETI spectrometer. It will mainly be used for all-sky SETI survey at 22GHz and for targeting SETI observations of the selected stars with known planets at 1.42 and 22GHz. We are currently developing an interactive SETI education program for elementary school students which will be used during the regular class of the Museum. They are all collaborative projects of Yonsei University and Gwacheon National Science Museum.

We have recently developed a new computer algorithm to detect very short time scale transient events from Very Long Baseline Interferometer (VLBI) raw data. Monte Carlo simulations with artificial VLBI raw data produced detection limits as a function of signal time scale and S/N ratios. We report in this paper some results from these Monte Carlo simulations. We have produced 100,000 work units from our artificial VLBI raw data sets with artificial ExtraTerrestrial Intelligence (ETI) signals used for simulations of detection efficiency. These work units are to be used for a test run with the distributed computing platform, Korea@Home. This is a collaborative work of Yonsei University and Korea Institute of Science and Technology Information (KISTI).

As parts of the IYA2009 main events, a 3-day workshop focusing mainly on SETI science for SF writers was held at the Sobaeksan Observatory and KVN-Yonsei Radio Observatory. Two more workshops for

animation artists and tale writers are scheduled to be held in this year. We are about to launch an organized public campaign for creating new Arecibo and Voyager-type messages to ETI. The results will be displayed in Daejeon Art Gallery as a part of the Science-Art exhibition during the period of the International Astronautical Congress (IAC2009).