

40th SYMPOSIUM ON THE SEARCH FOR EXTRATERRESTRIAL INTELLIGENCE (SETI) – The  
Next Steps (A4)  
SETI I : SETI Science and Technology (1)

Author: Dr. Stelio Montebugnoli  
National Institute for Astrophysics, Italy, s.montebugnoli@ira.inaf.it

Dr. Jader Monari  
National Institute for Astrophysics, Italy, j.monari@ira.inaf.it

Dr. Germano Bianchi  
National Institute for Astrophysics, Italy, g.bianchi@ira.inaf.it

Dr. Andrea Mattana  
National Institute for Astrophysics, Italy, a.mattana@ira.inaf.it

Dr. Marco Bartolini  
IRA-INAF, Italy, m.bartolini@ira.inaf.it

Dr. Giovanni Naldi  
National Institute for Astrophysics, Italy, g.naldi@ira.inaf.it

NEW DATA ACQUISITION AND PROCESSING SYSTEM FOR THE SETI-ITALIA  
DR. STELIO MONTEBUGNOLI, NATIONAL INSTITUTE FOR ASTROPHYSICS, ITALY

### Abstract

The previous generation of data acquisition systems for the Seti Italia program were represented by spectrum analyzers as MSPEC, equipped with a Sharp FFT computation oriented DSP, and a Serendip IV system we had from Berkeley University at the end of the 90s. The nowadays state of the art data acquisition and processing system for the same program, are based on extremely fast Field Programmable Gate Array (FPGA) mainly developed by the CASPER group at the Berkeley University (USA). Roach-1 board are under configuration at the Medicina (Bologna) labs and this seems to be the right approach for next generation SETI extremely fast and programmable data processing, in addition such a system is modular in order to be able to fit any computation load requirement.