Next Generation SETI and CASPER Experiments

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This presentation will describe next generation SETI experiments, as well as recent developments and plans of the Collaboration for Astronomy Signal Processing and Electronics Research (CASPER).

We'll present designs and prototypes for new SETI experiments with an ultra-wide field of view to search for low duty cycle signals at radio, IR and visible wavelengths.

We'll also discuss new development in the CASPER collaboration, including high bandwidth open source ADC boards (10, 15 and 26 Gsps), new FPGA boards with 100 Gbit/sec ethernet ports, as well as new programming tools, libraries, and heterogeneous FPGA/CPU/GPU/switch architectures utilized for flexible and scalable instrumentation in pulsar searching and timing, fast radio burst searching, spectrometers, correlators, VLBI, and SETI.

Open source source hardware, software, libraries, tools, tutorials, reference designs, information about workshops, and how to join the CASPER collaboration are available at http://casper.berkeley.edu