ADCs

- [64 Gs/s Jariet/Mercury Dev Board](#) has just arrived at Hat Creek Radio Observatory to be tested with an ATA dish.
  - 64 Gs/s ADC from Jariet + Versal FPGA System-in-Package
  - Contact Alex Pollak if you have experience with this part (either the board or the underlying ADC)
  - The part has previously been tested at SARAO (part was only available on loan for a week) and performance matched data sheet
  - HCRO has a desire to make this board work within the CASPER ecosystem
  - Important to note that the ADC has build-in DDC/decimators which means only ~6.4 GHz of *instantaneous* bandwidth is available for processing.
- So far no-one has experience with Intel (Altera) Direct RF or AMD (Xilinx) Versal RF (not yet released), which are the other 64GS/s digitization options.

FPGA Boards

- ASTRON working on two RF -> Ethernet boards (see Tuesday talk from Gijs Schoonderbeek) incorporating White Rabbit timing systems
  - One low-band board (2 inputs, 100 MHz bandwidth) with an Artix US+ with 10 GbE output
  - One high-band board (2.5 GHz bandwidth) with an RFSoC and 100GbE output (similar to RFSoC4x2 with two 100G ports and White Rabbit added)
  - Other CASPERites have been having conversations with RealDigital (designers of 4x2 board) about getting White Rabbit / 2x 100GbE added to the 4x2
- Lincoln Greenhill (CfA) previously designed a ~125 MHz bandwidth Kintex 7 based dual-ADC -> 10GbE board with White Rabbit targeting similar "digitize at the antenna" applications for low-frequency radio arrays.
- Dan Werthimer (UC Berkeley) interested in building a 32-channel, ~250MS/s digitizer/FPGA platform with a low-cost FPGA targeting $300 price.
- Some notes that very low-bandwidth (1-10 MS/s) very large-N cheap digitization/packetization platforms could be interesting for some science cases, and aren't readily available.

Timing & Synchronization

- Follow up interest in Dan Werthimer's (UC Berkeley) timing board (see his Monday talk) which is a uBlocks part (F9T) designed to give good (~600ps) differential timing between multiple timing recovery systems but less good synchronization to UTC. Other uBlocks parts prioritize differently. Cheap Ebay GPSDOs likely better for cheap sync to UTC
  - Dan Werthimer or Ben Godfrey for more details

RF-over-Fiber

- Interest in both low-cost, low-bandwidth – e.g. ~100 MHz LWA – and high-bandwidth e.g. ~20GHz ATA – spaces.
- DSA has evaluated many (*many*) RFoF modules for DSA2000 application (performance to ~3GHz, <$100). Most seem so similar that they are likely the same part being sold through different channels
- Kiran Shila (CalTech) is resident DSA RFoF expert (see Friday's talk about the DSA analog signal path) and has been designing the DSA hardware to be open-source and usable by others.