

Bonn correlator report

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Correlator status and operations

Capabilities

Architecture:

- DiFX software correlator version 2.5.3

Playback units:

- 15 x Mark5 (SDK 9.4)
- 9 x Mark6

Storage:

- Raw data: 1.6 Pbyte on BeeGFS parallel filesystem
- Correlated data: 57 TB (RAID 6)
- Archive: MPIfR tape library (mirrored)

E-transfer:

- 2 x 1Gbps symmetric bandwidth
- JIVE5ab 2.9.0 (default)
- Tsunami

Data products:

- FITS (default)
- Mark4/HOPS

Hardware

- Cluster with 68 compute nodes (1360 cores)
- Allows for >3 parallel correlations without significant loss of performance

A more detailed overview of the correlator capabilities can be found at:

<http://www.mpifr-bonn.mpg.de/771785/DiFX-CORRELATOR>

Recent Activities /Status

GMVA

- Pre-session fringe test: finished ([details](#))
- Spring 2019 session: ongoing ([details](#))
- 4 Gbps test (April 2019): ongoing ([details](#))

EHT

- 2017 session: finished
- 2018 session: re-correlation ongoing

RadioAstron

- GG081A & GG081C: released to PI (see [GG081A](#), [GG081C](#))
- GG080: ongoing ([details](#))
- All raw data transferred to Moscow
- Implemented closed-loop correlation mode

Geodesy

- No backlog for standard IVS correlations
- Coordination & correlation of EU-VGOS tests