ZWURM, 28-09-2020 14:00 (ZWURM through Zoom because of #COVID19 house quarantaine/wk29)

Present eBob, Aard, Ilse, Des, Paul, Harro

Aard: CASA6 wrapper for Jupytercasa image issues: CASA6 changes Python interface, needs to be accomodated. Lots of code necessary to support AIPS-style task invocation - how long+at what level does this remain supported? [Ilse: will bring it up in the CUC, don't expect useful answer]. BenitoM reported an issue in the primary beam correction method; related to change from Numeric to numpy as Python array class; added e-Merlin stations with nominal values (not measured yet), SRT have sent beam map at L-band! JasonH/KenziN sub-1us integration time: reported ringing/artefacts (sinc pattern); after investigation: with proper flagging cannot reproduce; hypothesis: PSRCHIVE artefact? Will continue to work on merging dededispersion code into main branch and investigate MPC correlation with subints > 1 crash.

Paul: broken disk in trantor offsite backup, hot spare also showing errors; two disks ordered and will be replaced. Poweroutage fall-out: marcopolo root disk (SATA-dom) dead (replacements ordered), two more Mark5 power supplies died (BobC wants them alive, will order new PSUs), flexbuffs remain in initramfs state because root fs can't be found (will be looked into). The new VM cluster (cl2/3) has been ordered. Disk expansion for casadev needs to be ordered. After too much time spent on ASTRON 100Gbps optics can conclude they're defunct. Own experiment EB081A correlated (8hr to download to home in Dwingeloo) - source detected, easy data reduction because of ParselTongue; missing clear HowTo about polarization calibration in AIPS; working on making two schedules for next session. Presented talk at RadioNet "Future trends" workshop - as result published GNURadio VDIF packetizer module; Jintao Luo (Xi'an) already interested. Working on code.jive.eu certificate issue where certificate works for https but not for command-line git push/pull [filed support request on gitea forum].

Ilse: Globals in EVN archive have T_ant/T_sys in ANTAB file for VLA for data <= 2009 or so, these values break the CASA scripts; only 40-50 globals w/ VLA in archive, so less than that affected; looking at changing script - ANTAB file contains specific keyword. Spent some time on Yun Mrk591 data, investigating AIPS/CASA flux difference - observed some differences in fringefit/caltable, possibly parameter error; ongoing. EHT AGN working group on NRAO150 inspecting amplitude calibration effects reported; investigation reveals not a big effect, advice: do not spend a lot of time on this. Tried MS Teams as platform for the CASA workshop (ASTRON moving towards Microsoft) but everything is in the wrong (i.e. other) place compared to Zoom; will stick to Zoom for the workshop. Attended RadioNet "Future trends" meeting. This week continue working on workshop, Yun data and N14C3 CASA/AIPS pipeline differences - in plots some stations still show a rate, possibly not well fitted. OlgaB made ParselTongue script based on RossB's document, created Jupyter notebook from that but cannot test until

data found.

eBob: rewrote backup script in Python, now backing up ddd to new LTO8 drive (already at 9TB now); initial speed 80-90 MB/s, now stable at 50-60 MB/s. BenitoM request: ANTAB editor not read all *.IDI files at startup to make that shorter; also ideas about how to handle spectral line data, requires testing. Will arrange 4Gbps test with WSRT FiLa10G.

Des: attended RadioNet "Future trends" workshop. Experiences problems connecting to desktop after power outage. Built docker + singularity images with AIPS + ParselTongue, looking for testers. Ran into a casa issue with the fringefitter: frequency check too strict (double comparison "=="); awaiting GeorgeM fix. Radboud/Nijmegen has created an account on their 90GB RAM machine to allow investigation memory issue. The issue of shortening solution intervals needs to be revived – prefer quick way of solving and postpone proper way until later. Testing LOFAR fringefitting with selfcal image difficult; after each run wait for someone to mail image back; request imaging parameters to be able to image by self.

Mark: (mailed in report; absent due to late realization that ZWURM conflicted with ESA ObsVisTAP demonstrator talk)
Together with AardK create presentation for onboarding CASA/Jupyter into OSSR catalog. Looking into W3C PROV model to describe provenance for entries in the OSSR – e.g. transform dockerfile into provenance graph. CASA gaincurve implementation finished, tests written; spent time on other tickets (importfitsidi for eMERLIN, EVLA system power table changes review); spent some time investigating VLA amplitude calibration in archived EVN datasets. Poweroutage fall-out: some flexbufs missing mount points, some nodes too [Paul: fixed that!]. MPC correlation with subints > 1 needs to be looked into. This week busy with meetings; NRAO/CASA VLBI coordination, IVOA RadioInterest Group meeting, ESCAPE WP4 meeting on visibilities in the VO (with CDS/ASTRON/NENUFAR). Spend rest of time on CASA tickets since code freeze is imminent.