Sunday 21 September

18:00

Ice-breaker reception [At ASTRON/JIVE venue]

Contribution

Description

At ASTRON (via main entrance)

20:30

Monday 22 September

09:00

Theory 1
Session

09:00–09:45 **(VLBI) Correlation 101**

Speaker
Bob Campbell

Description

Introduction to correlation and correlator basics, history

09:45–10:30 **Correlation preparation**

Speakers
Aard Keimpema, Mark Kettenis

Description

Knowing what (meta)data is needed for correlation, where to get it and how to store/format it.

10:30

10:30

coffee
Break

11:00

11:00

Hybrid session 1
Session

Description

Theory 2

11:00–12:30 **Setting up the correlator**

Speakers
Aard Keimpema, Mark Kettenis

Description

After an introduction to setting up a cluster for running the SFXC distributed correlator, participants will be setting up and verify the operation of their correlation environment.

12:30

12:30

lunch
Break

13:30

13:30

Hands-on 1: Getting everyone's correlator to run
Contribution | **Speakers:** Aard Keimpema, Mark Kettenis

Description

On a simple VLBI observation

15:00

15:00

Tea
Break

15:30

15:30

Hands-on 2: Post-correlation processing

Contribution | **Speaker:** Marjolein Verkouter

Description
Translating the SFXC output into more standard data format(s) for inspection and export/ archiving

Important URsL:
- the workshop documentation https://jradcliffe5.github.io/sfxc_workshop_2025/correlation_post.html
- the jive-casa package https://code.jive.eu/verkout/jive-casa
- the jplotter Python package https://github.com/haavee/jiveplot.git

16:15

16:15

Q+A

Session

17:00

18:25

Workshop dinner

Contribution

Description
The workshop dinner is held at:
't hof van Dwingeloo (https://hofvandwingeloo.nl)
Drift 1
Dwingeloo

The materials added to this provide route maps from the workshop venue (ASTRON's premises) to 't hof van Dwingeloo, and from there back to The Börken.

20:55

Tuesday 23 September

09:00

Hybrid 3: Pulsar processing

Session

09:00–09:30 **Pulsar processing**

Speakers
Aard Keimpema, Franz Kirsten

Description

Introduction

09:30–10:00 **Producing filterbank format output + run PSR tools**

Speaker
Franz Kirsten

10:00–10:30 **Pulsar gating**

Speaker
Franz Kirsten

Description

Handling a FITS file with pulses in

10:30

10:30

coffee

Break

11:00

11:00

Hybrid 4: FRB Processing

Session

11:00–11:30 **PRECISE processing**

Speaker
Franz Kirsten

Description

How the PRECISE EVN-lite mode actually works and what it does

11:30–12:00 **Semi-automated pulse processing**

Speaker
Aard Keimpema

Description

How to use and run the semi-automatic gating system

12:00–12:30 **SFXC and duct-tape = single dish FRB workflow**

Speaker
Omar Ould-Boukattine

Description

How several components can be duct-taped together to form a workflow for unique science

12:30

12:30

lunch

Break

13:30

13:30

Hybrid 5: Wide-field processing

Contribution | **Speaker:** Jack Radcliffe

Description

Bright source, two images, check fringes
Same dataset as Day 1

15:00

15:00

Tea

Break

15:30

15:30

Hybrid 6: Geodesy

Contribution | **Speaker:** Mark Kettenis

Description

Same dataset as Day 1; check Geo data on flexbuffs @ JIVE
Running "sfxc2mark4", "pulse cal" (aka phase cal tone processing)
Running "fourfit"

16:15

16:15

Future bells & whistles

Session

16:15–16:25 **SFXC - the GPU version**

Speaker
Aard Keimpema

Description

Showcasing recent results from porting SFXC to GPU accelated platform(s)

16:25–16:35 **SKA-VLBI**

Speakers
Jack Radcliffe, Mark Kettenis

Description

SKA-VLBI:
- intro (Jack R)
- requires multi-beam processing; planning to implement as multiple field center correlation w/ extra bookkeeping (Mark K)

16:35–16:55 **User / community input discussion**

Description

- knee-jerk feedback from participants/unfiltered comments!
- needs/wishes from the community

17:00