

# SKA/MFAA Science Demonstrator

A couple of possibilities

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# Considerations

- A funding proposal is most likely to succeed for a project which is primarily science motivated (not primarily a technology demonstrator)
- A specific science motivated instrument will impose certain design optimizations which go against the MFAA philosophy of general purpose instrument
- Demonstrator will do one thing very well, and maybe the other things also, but not so well
- Should have a scientific heavyweight as PI to lead the proposal

## Two possibilities

- Cosmology Intensity Mapping
- Fast radio transients

# Cosmology Intensity Mapping Instrument

- Single station with nearly all the collecting area
- a few outliers within 1km
- Optimized for the lower frequencies (irregular sparse array)
- Proposed PI
  - Abdalla for a European proposal
  - Santos for a South Africa proposal

# Fast Radio Transient Instrument

- Single station with nearly all the collecting area
- a few outliers within 1km
- Optimized for the higher frequencies  
(regular dense array)
- Proposed PI
  - Corbel? Karastergiou? Fender? Keane? Macquart?  
(AK and RF have both European and South Africa affiliations)