

Your own radio astronomy project

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ASTRON

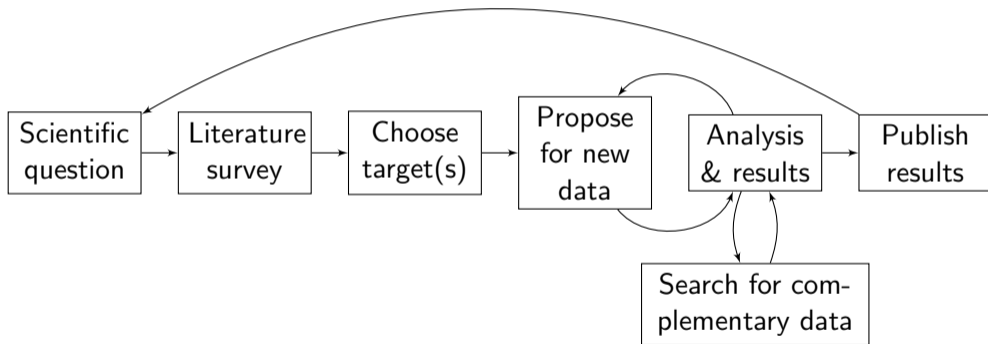
July 10, 2019

Session objective

- ① Develop your own radio astronomy project
- ② Learn to write an observing proposal for your project
- ③ Convince us why your project should be observed.

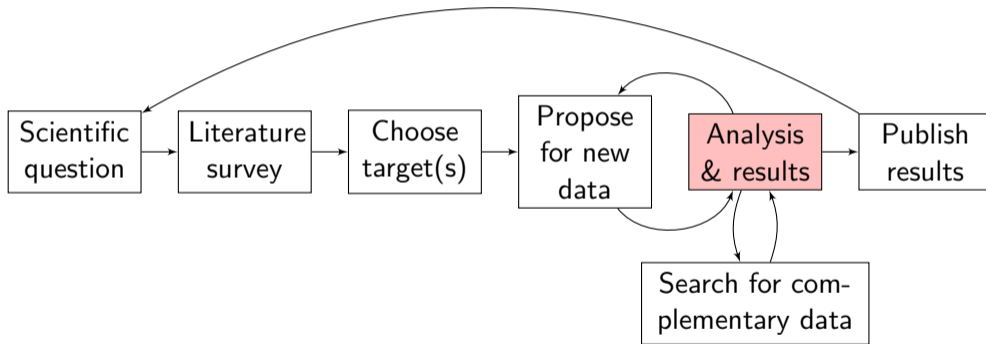
Life-cycle of a project

- Progress of a typical scientific project



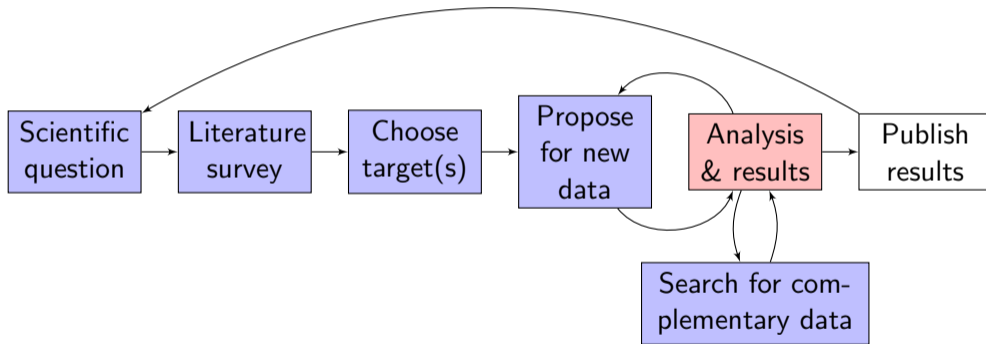
Life-cycle of a project

- Most of this workshop, we saw how to calibrate and image radio data.



Life-cycle of a project

- In this session, you will do the activities that come before data analysis.



Structure of a typical proposal

- In addition to sources to observe and frequency bands to use, proposals contain:
- **Scientific justification**
 - ▶ Explain the scientific background & goals of your proposal.
- **Technical justification**
- Examples from VLA:
 - ▶ Scheduling constraints?
 - ▶ Will the new data be combined with other radio telescopes?
 - ▶ Explain your choice of receiver (i.e.) frequency range?
 - ▶ What sensitivity is required for your science?
 - ▶ Do you expect any imaging problems you might expect?
 - ▶ How much RFI do you expect? – For the VLA, declination range 0° to -10° is affected by geosynchronous satellites.

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- Use these questions to guide your work:
 - ▶ Which telescope to use?
 - ▶ Why is this telescope/array better than others?
 - ▶ Which object to observe and why?
 - ▶ Are there other data (radio or otherwise) that can be used?
 - ▶ What do you expect to find in the end?

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Good luck!