# Core stack to get work done

## Astroquery + MAST

1. Astroquery (repo) — <https://github.com/astropy/astroquery>
2. MAST module overview — <https://astroquery.readthedocs.io/en/latest/mast/mast.html>
3. Observations query — <https://astroquery.readthedocs.io/en/latest/mast/mast_obsquery.html>
4. Missions — <https://astroquery.readthedocs.io/en/latest/mast/mast_missions.html>
5. Catalog — <https://astroquery.readthedocs.io/en/latest/mast/mast_catalog.html>
6. Cutouts — <https://astroquery.readthedocs.io/en/latest/mast/mast_cut.html>
7. General MAST query — <https://astroquery.readthedocs.io/en/latest/mast/mast_mastquery.html>

## JWST pipeline & docs

1. JWST pipeline (repo) — <https://github.com/spacetelescope/jwst>
2. Known issues — <https://jwst-docs.stsci.edu/known-issues-with-jwst-data>
3. Science calibration pipeline — <https://jwst-docs.stsci.edu/jwst-science-calibration-pipeline#gsc.tab=0>
4. Calibration status — <https://jwst-docs.stsci.edu/jwst-calibration-status#gsc.tab=0>
5. Post-pipeline analysis — <https://jwst-docs.stsci.edu/jwst-post-pipeline-data-analysis#gsc.tab=0>

## Visualization/analysis (Jdaviz)

1. Jdaviz docs — <https://jdaviz.readthedocs.io/en/stable/>
2. Jdaviz (repo) — <https://github.com/spacetelescope/jdaviz>
3. Imviz — <https://jdaviz.readthedocs.io/en/stable/imviz/index.html>
4. Specviz — <https://jdaviz.readthedocs.io/en/stable/specviz/index.html>
5. Specviz2d — <https://jdaviz.readthedocs.io/en/stable/specviz2d/index.html>
6. Cubeviz — <https://jdaviz.readthedocs.io/en/stable/cubeviz/index.html>
7. Mosviz — <https://jdaviz.readthedocs.io/en/stable/mosviz/index.html>
8. Jdaviz docs (duplicate of the hub) — <https://jdaviz.readthedocs.io/en/stable/>

## Spectral utilities

1. specutils (repo) — <https://github.com/astropy/specutils>
2. specutils docs — <https://specutils.readthedocs.io/en/stable/>
3. synphot (legacy refactor repo) — <https://github.com/spacetelescope/synphot_refactor/blob/master/docs/index.rst>
4. synphot docs — <https://synphot.readthedocs.io/en/latest/index.html>

## File formats & coordinates

1. ASDF (repo) — <https://github.com/asdf-format/asdf>
2. ASDF docs — <https://www.asdf-format.org/projects/asdf/en/latest/>
3. gwcs (repo) — <https://github.com/spacetelescope/gwcs>
4. gwcs docs — <https://gwcs.readthedocs.io/en/latest/>

# Data access: MAST portals, APIs, and examples

1. MAST Notebooks (gallery) — <https://github.com/spacetelescope/mast_notebooks/tree/main>
2. JWST duplication checking notebook — <https://spacetelescope.github.io/mast_notebooks/notebooks/JWST/duplication_checking/duplication_checking.html>
3. MAST Portal Guide — <https://outerspace.stsci.edu/display/MASTDOCS/Portal+Guide>
4. MAST JWST portal (UI) — <https://mast.stsci.edu/search/ui/#/jwst/>
5. MAST API Python examples — <https://mast.stsci.edu/api/v0/pyex.html>

# JWST access, citation, instruments, observatory

## Access & citation

1. Citing JWST data — <https://jwst-docs.stsci.edu/accessing-jwst-data/citing-jwst-data#gsc.tab=0>
2. Accessing JWST data (overview) — <https://jwst-docs.stsci.edu/accessing-jwst-data#gsc.tab=0>

## Instruments

1. MIRI — <https://jwst-docs.stsci.edu/jwst-mid-infrared-instrument#gsc.tab=0>
2. NIRCam — <https://jwst-docs.stsci.edu/jwst-near-infrared-camera#gsc.tab=0>
3. NIRISS — <https://jwst-docs.stsci.edu/jwst-near-infrared-imager-and-slitless-spectrograph#gsc.tab=0>
4. NIRSpec — <https://jwst-docs.stsci.edu/jwst-near-infrared-spectrograph#gsc.tab=0>

## Observatory & performance

1. Observatory hardware — <https://jwst-docs.stsci.edu/jwst-observatory-hardware#gsc.tab=0>
2. Characteristics & performance — <https://jwst-docs.stsci.edu/jwst-observatory-characteristics-and-performance#gsc.tab=0>
3. Other JWST tools — <https://jwst-docs.stsci.edu/jwst-other-tools#gsc.tab=0>

# JWST opportunities, policies, review

1. Opportunities & policies (hub) — <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies#gsc.tab=0>
2. Call for Proposals (Cycle 5) — <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-call-for-proposals-for-cycle-5#gsc.tab=0>
3. General science policies — <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-general-science-policies#gsc.tab=0>
4. Peer review info — <https://jwst-docs.stsci.edu/jwst-opportunities-and-policies/jwst-peer-review-information#gsc.tab=0>

# Astropy ecosystem: foundations and big tools

## Astropy core

1. Astropy project hub — <https://github.com/astropy/astropy-project>
2. Astropy website repo — <https://github.com/astropy/astropy.github.com>
3. Astropy docs — <https://docs.astropy.org/en/stable/index.html>

## Optics/PSF

1. poppy (JWST optics & PSFs) — <https://github.com/spacetelescope/poppy>

## Images, viewers, and linked data

1. glue (repo) — <https://github.com/glue-viz/glue>
2. glue docs — <https://docs.glueviz.org/en/stable/index.html>
3. ginga (repo) — <https://github.com/ejeschke/ginga>
4. ginga docs — <https://ginga.readthedocs.io/en/stable/>

## Image analysis & photometry

1. photutils (repo) — <https://github.com/astropy/photutils>
2. photutils docs — <https://photutils.readthedocs.io/en/stable/>
3. photutils (duplicate repo) — <https://github.com/astropy/photutils>
4. photutils docs (duplicate) — <https://photutils.readthedocs.io/en/stable/>
5. astroimtools (repo) — <https://github.com/spacetelescope/astroimtools>
6. astroimtools docs — <https://astroimtools.readthedocs.io/en/stable/>
7. imexam (repo) — <https://github.com/spacetelescope/imexam>
8. imexam docs — <https://imexam.readthedocs.io/en/0.9.1/>

# JWST notebooks and JDAT

1. JDAT notebooks — <https://github.com/spacetelescope/jdat_notebooks>
2. MAST notebooks (gallery) — <https://github.com/spacetelescope/mast_notebooks/tree/main>
3. JWST duplication checking (specific notebook) — <https://spacetelescope.github.io/mast_notebooks/notebooks/JWST/duplication_checking/duplication_checking.html>

# Misc infrastructure you’ll thank later

1. ASDF (repo) — <https://github.com/asdf-format/asdf>
2. ASDF docs — <https://www.asdf-format.org/projects/asdf/en/latest/>
3. gwcs (repo) — <https://github.com/spacetelescope/gwcs>
4. gwcs docs — <https://gwcs.readthedocs.io/en/latest/>