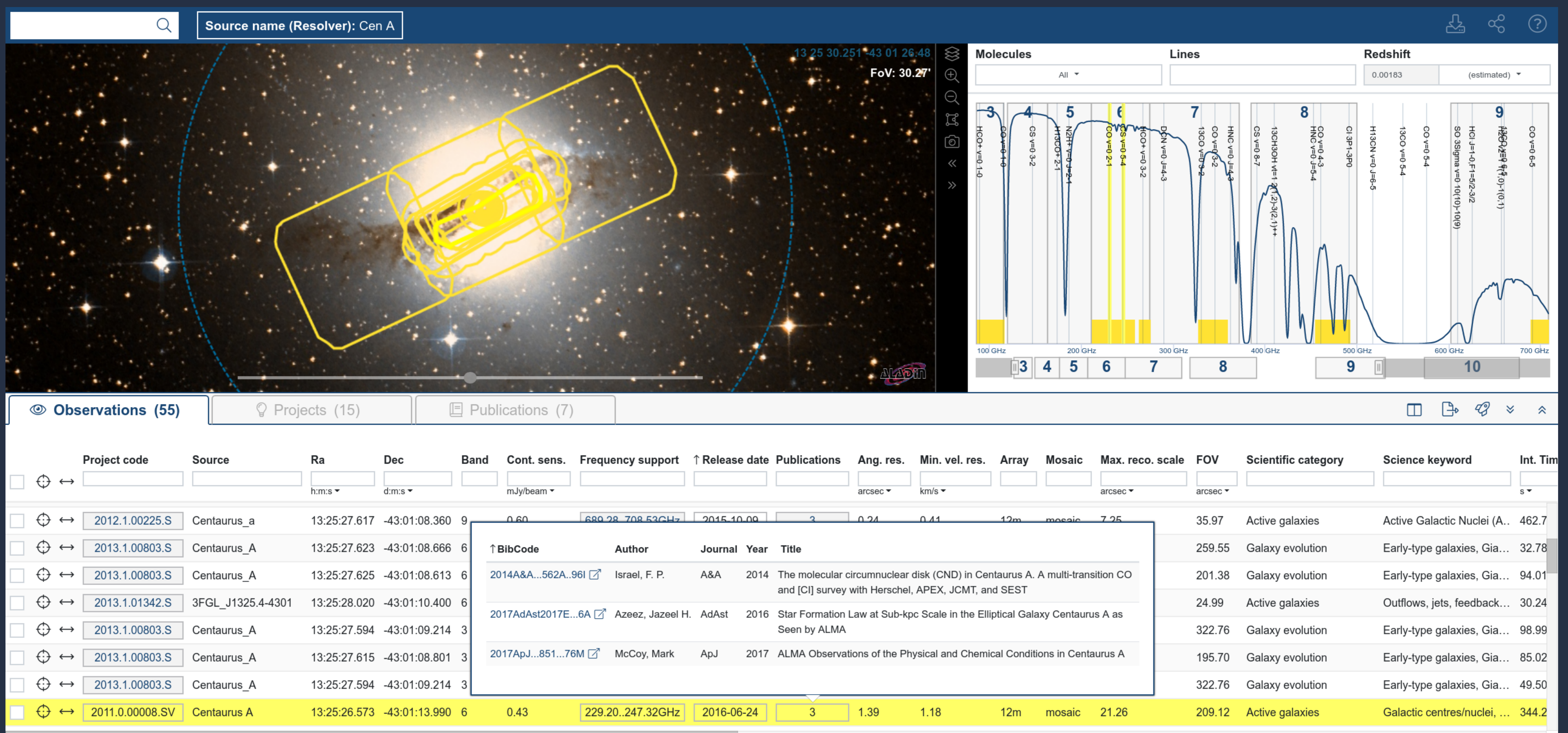# The new ultra-fast ALMA archive interface

Miguel del Prado (ESO), Felix Stoehr (fstoehr@eso.org) (ESO), Alisdair Manning (ESO), Brenda Matthews (NRC), Rie Miura (NAOJ), Adele Plunkett (NRAO), Kuo-Song Wang (ASIAA)

https://almascience.org/asax

General

- instantaneous search-as-you-type
- simultaneous search of observations, projects and publications
- fully unrestricted (=unscoped) search with subfiltering on 45 query fields
- on-hover highlighting of spatial and spectral footprints
- link to share/bookmark the current search
- reconfigurable interface layout
- active search constraints always visible
- all rows and all columns instantaneously accessible
- fully scaleable technology using ElasticSearch and server-side scrolling

Frequency View

- auto-zooming spectral-range
- hierarchical spectral line display most relevant for ALMA, properly redshifted
- molecular line filtering
- selectable molecule groups (top 20, hot cores, extragalactic, …)

Sky View

- AladinLite sky view with clickable footprints
- footprint display also for entire projects or data used in publications
- slider to fade through HiPS backgounds from gamma-rays to radio
- marked search centre and radius
- footprint-density instead of footprints shown at low zoom-levels

Result Table

- autoscroll to hovered footprint
- interactive cells with abstracts, list of publications, etc
- change of physical units, sorting, ordering
- sending of results as VO-Table via SAMP to Aladin/Topcat/etc
- data-export in various formats
- calendar-event generation for proprietary data

… and much more!