

# Taiwan Astronomical Research Alliance (TARA) in ALMA - Taiwan



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The Taiwan Astronomical Research Alliance (TARA) contributes in supporting Taiwan's participation in the Atacama Large Millimeter/submillimeter Array (ALMA) project through Taiwan ALMA Regional Center (T-ARC). As part of its broader mission to advance astronomy through science promotion, technical support, and international collaboration, TARA help both scientific and operational assistance to Taiwanese users of ALMA. This includes helping researchers prepare observing proposals, offering data reduction and analysis support, and organizing community engagement activities such as ALMA-focused workshops and seminars

## Training and Meeting



### Support the Taiwanese ALMA User Community (2025)

• **ALMA Imaging Workshop** Feb 14–15@ASIAA A two-day intensive training focused on ALMA data analysis to empower and expand the user base in Taiwan.

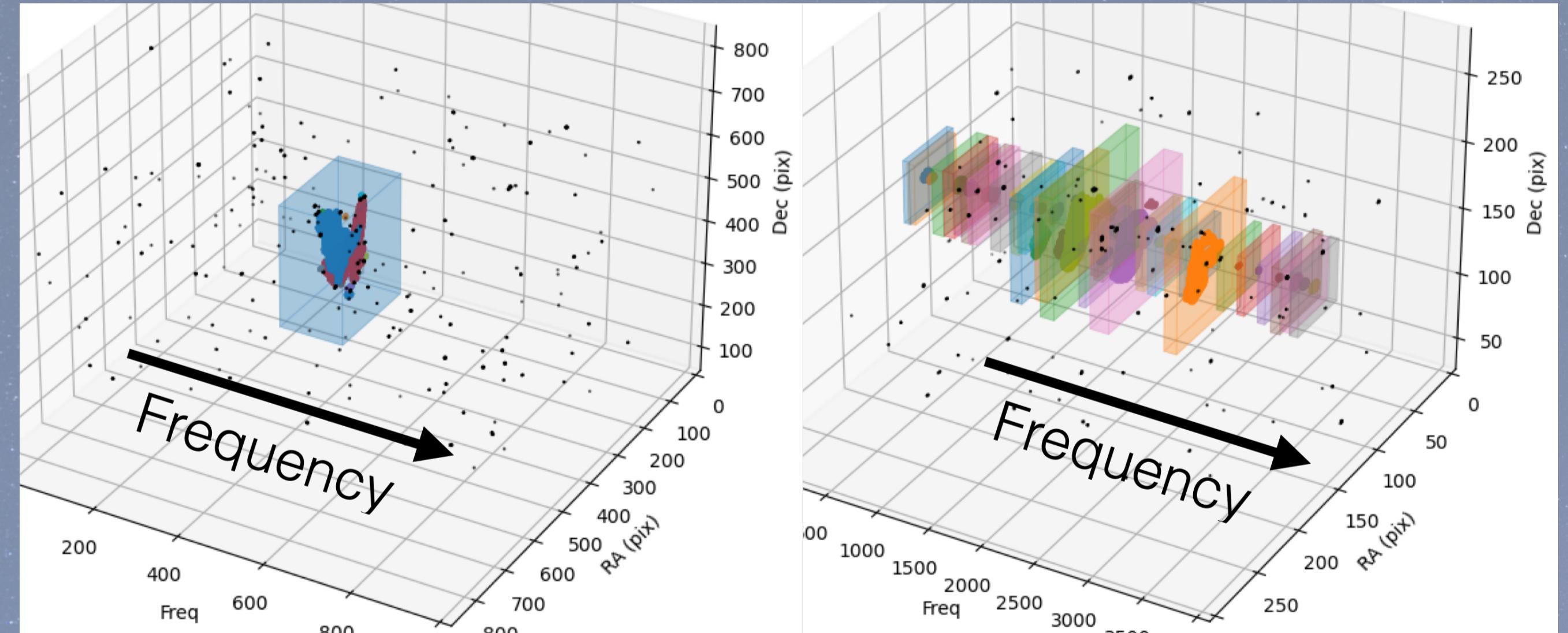
• **ALMA Cycle 12 Users Workshop** Mar 25@NTHU A dedicated session providing essential technical support for ALMA proposal preparation ahead of the annual deadline.

• **NA–Taiwan Joint ALMA Workshop** Jun 16–19@ASIAA A collaborative platform between North American and Taiwanese communities to strengthen international research ties.

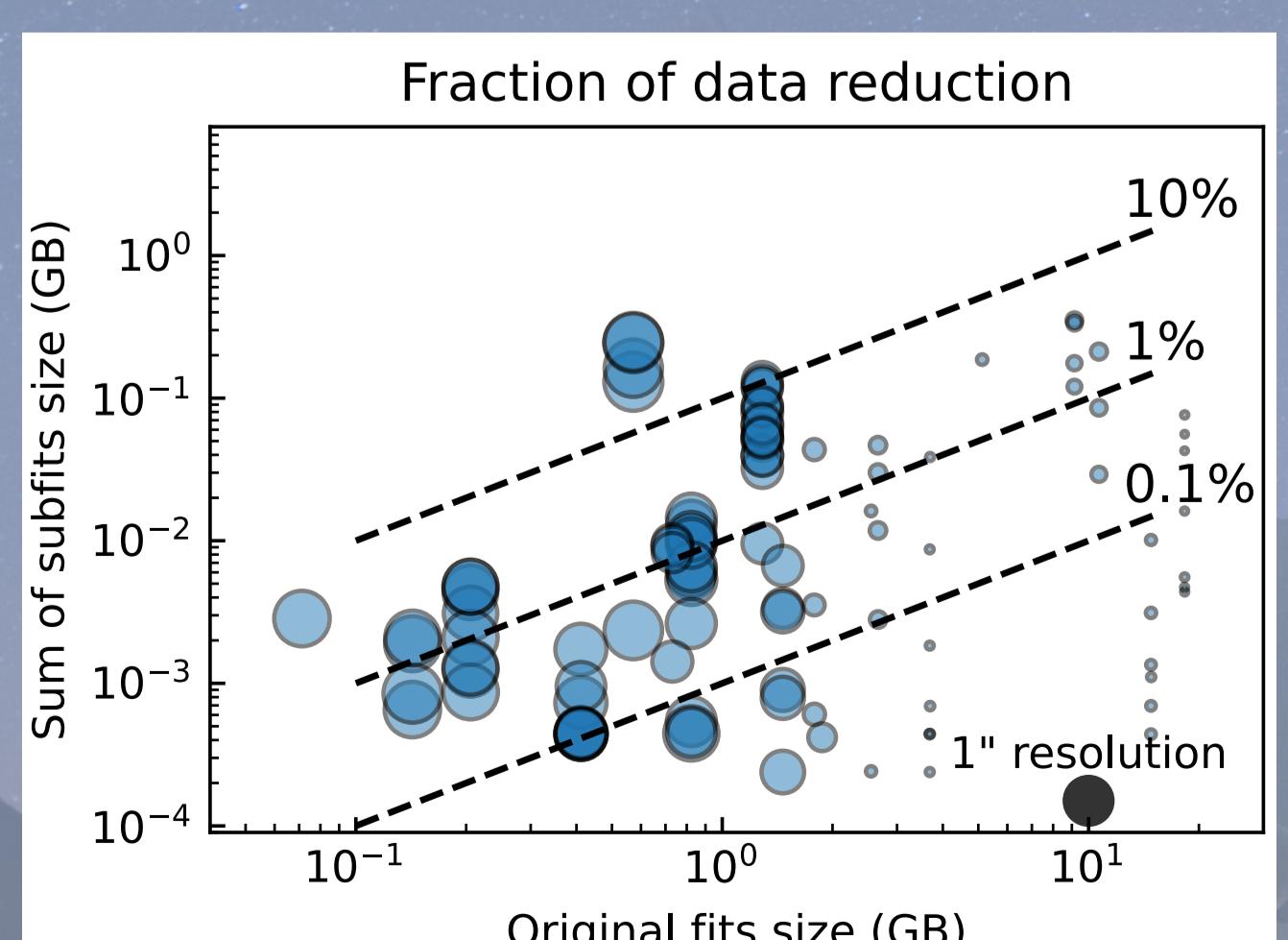
• **CARTA Showcase Mini-Workshop** Aug 5@ASIAA An interactive workshop for users to exchange experiences and explore the latest features in new CARTA releases.



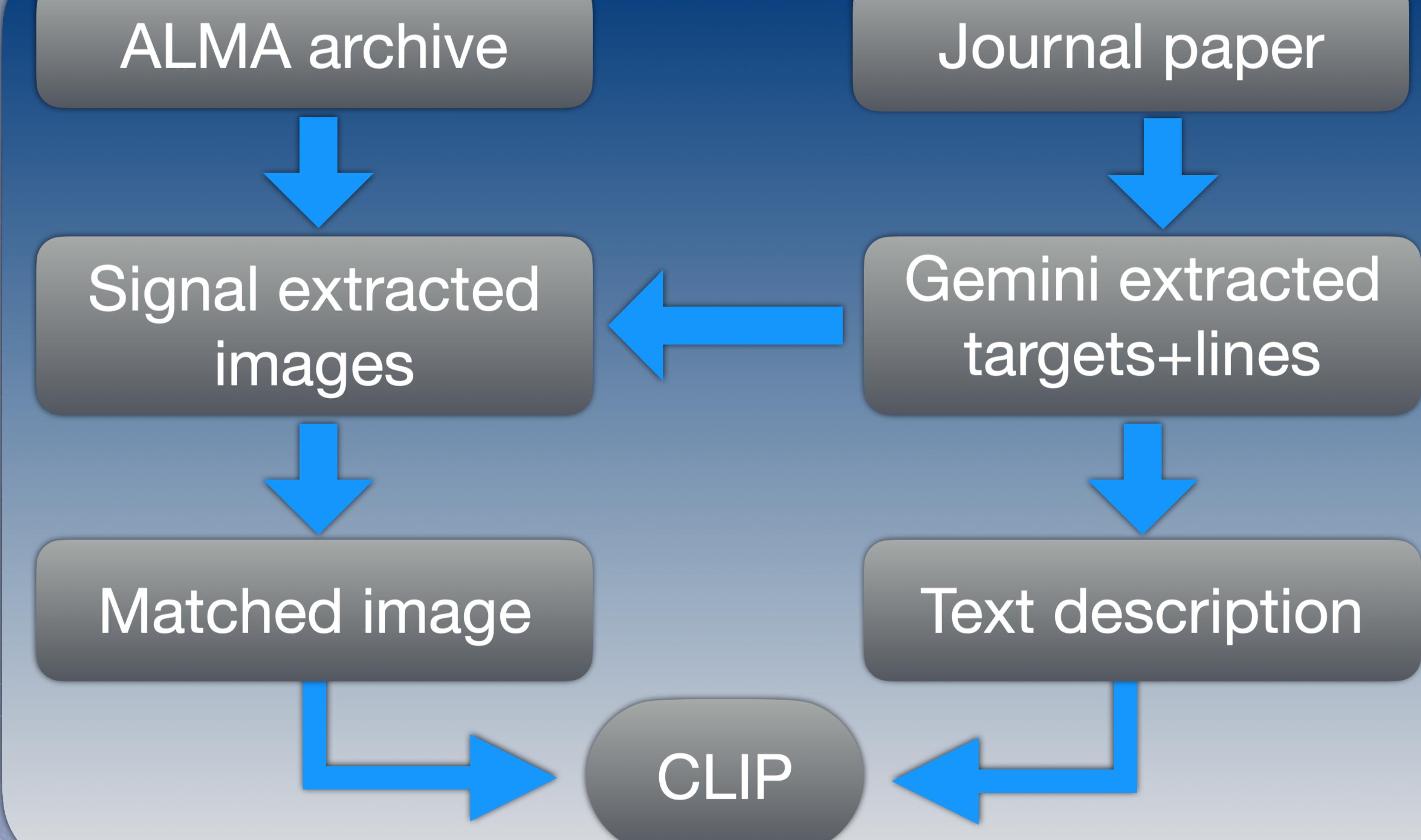
## Mini Archived System



Line emission ( $S/N > 5$ ) regions color area extracted based on DBSCAN algorithm in the position-position-velocity space. The rectangle boxes indicate region where the sub-images extracted.



The comparison between the total size of the extracted image and the original image size. This sample suggest the reduced (fits) dataset is  $\lesssim 10\%$  the original ones.



This figure illustrates the concept of Contrastive Language–Image Pretraining (CLIP) for the proposed ALMA archive query system. If successful, the model will enable users to search data within a mini ALMA archive using natural-language queries.