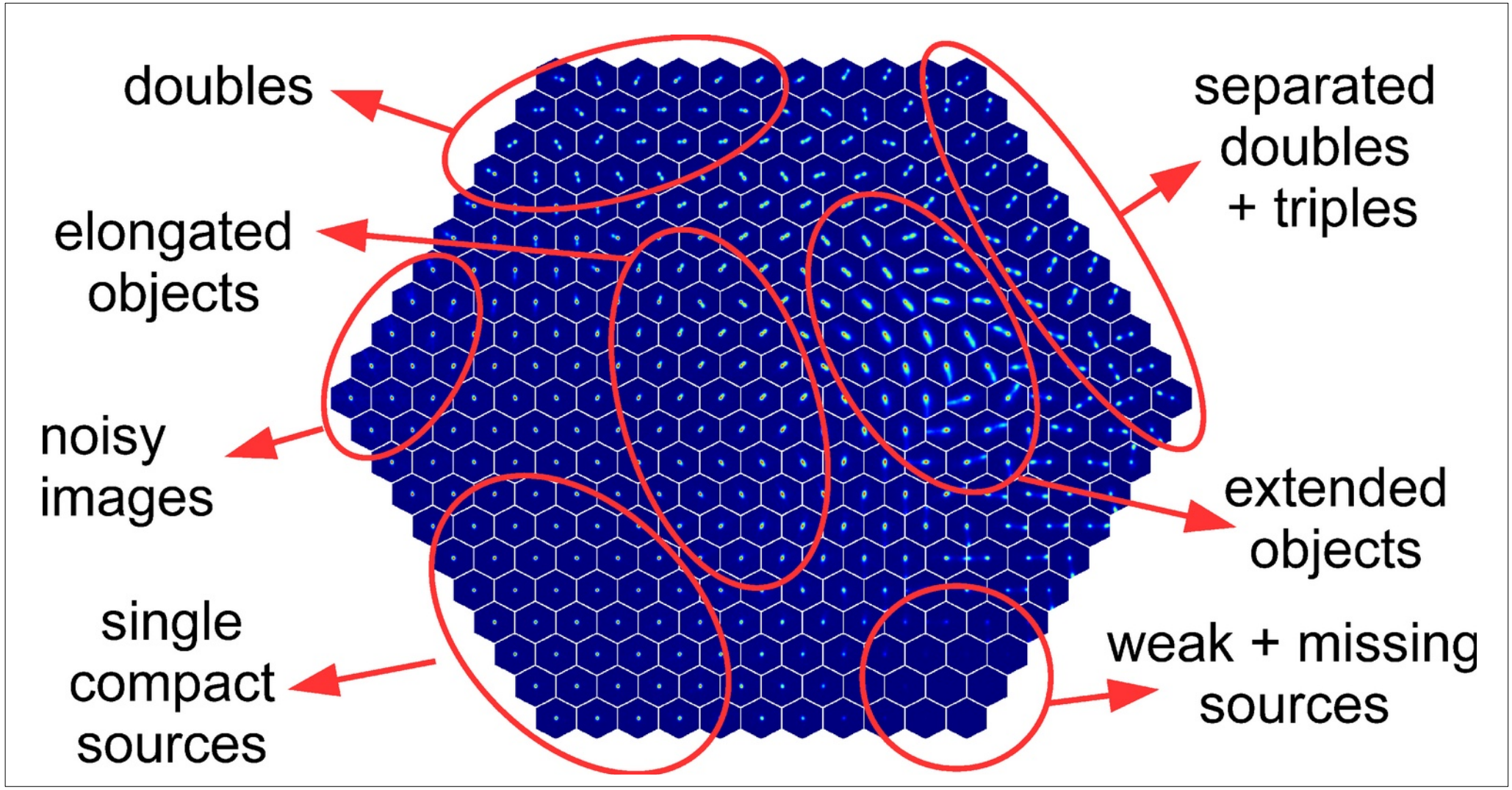
HITS
Heidelberg Institute for Theoretical Studies

Spherinator & HiPSter & Jasmine:

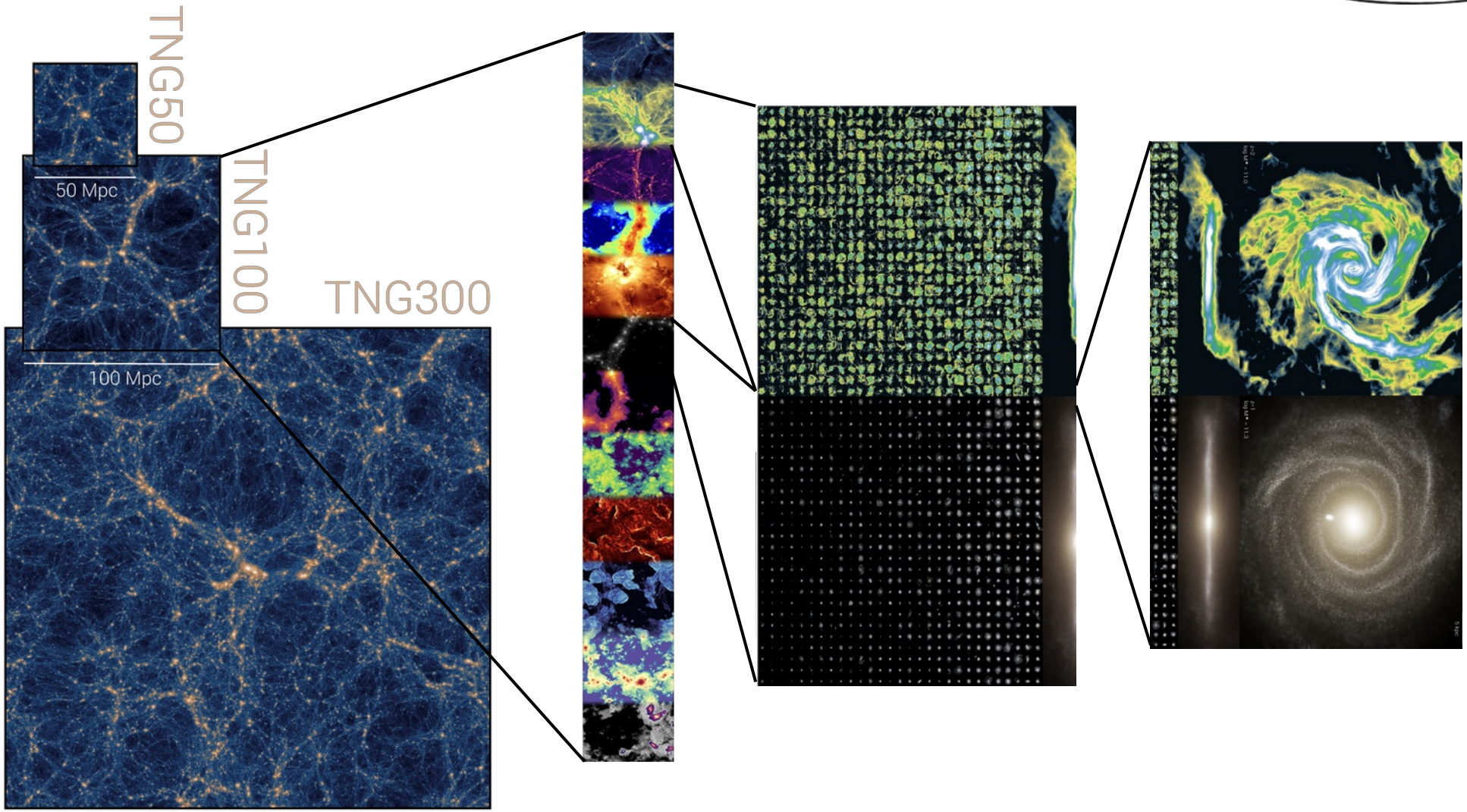
Using HiPS tiling to allow for explorative access to simulations

Interop Victoria, 2018, DM

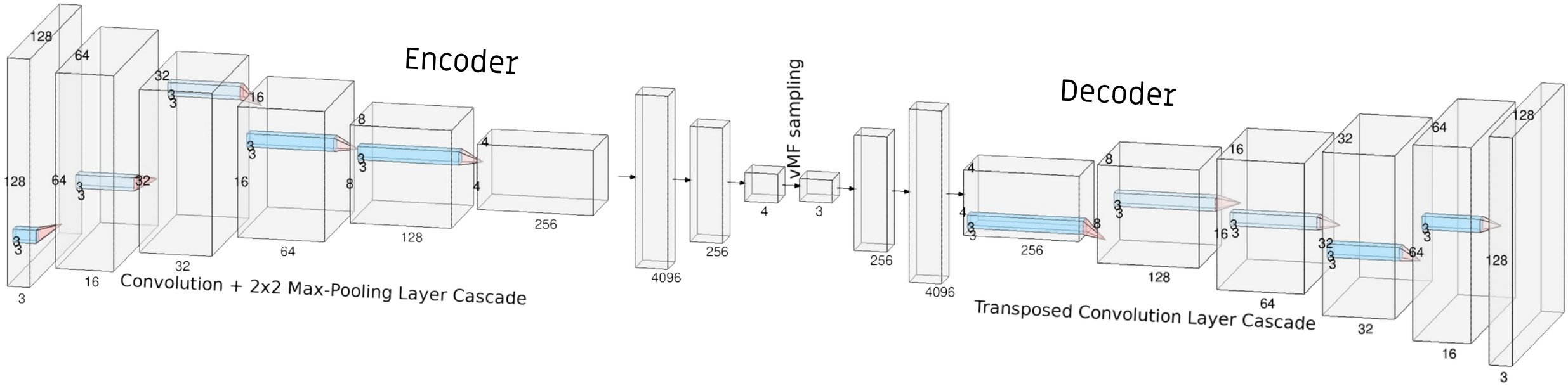


https://wiki.ivoa.net/internal/IVOA/InterOpMay2018KDIG/KDIG.pdf

SPACE / IllustrisTNG simulation



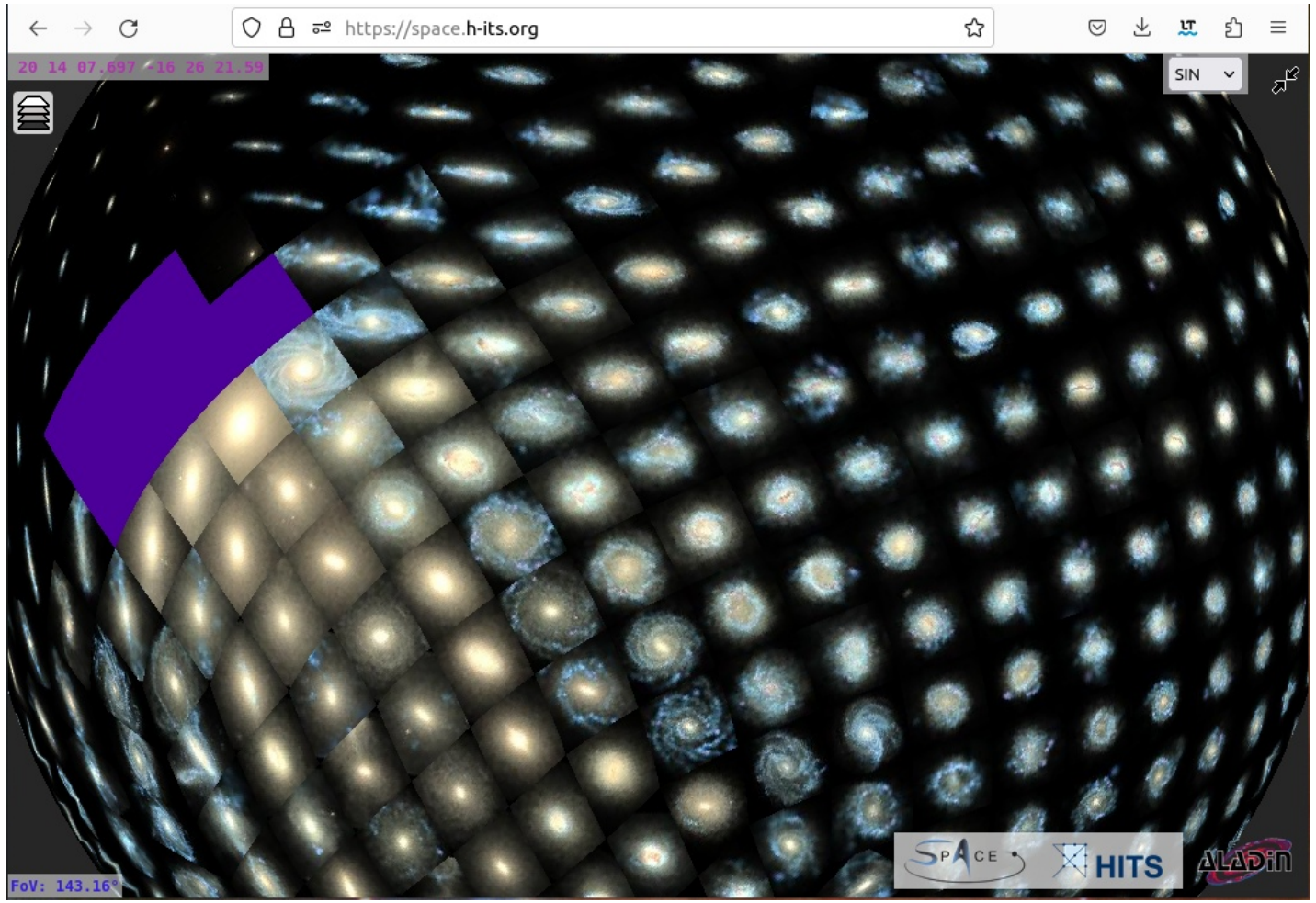
Hyperspherical Variational Convolutional Autoencoder



Representing the Model/Data with HiPS

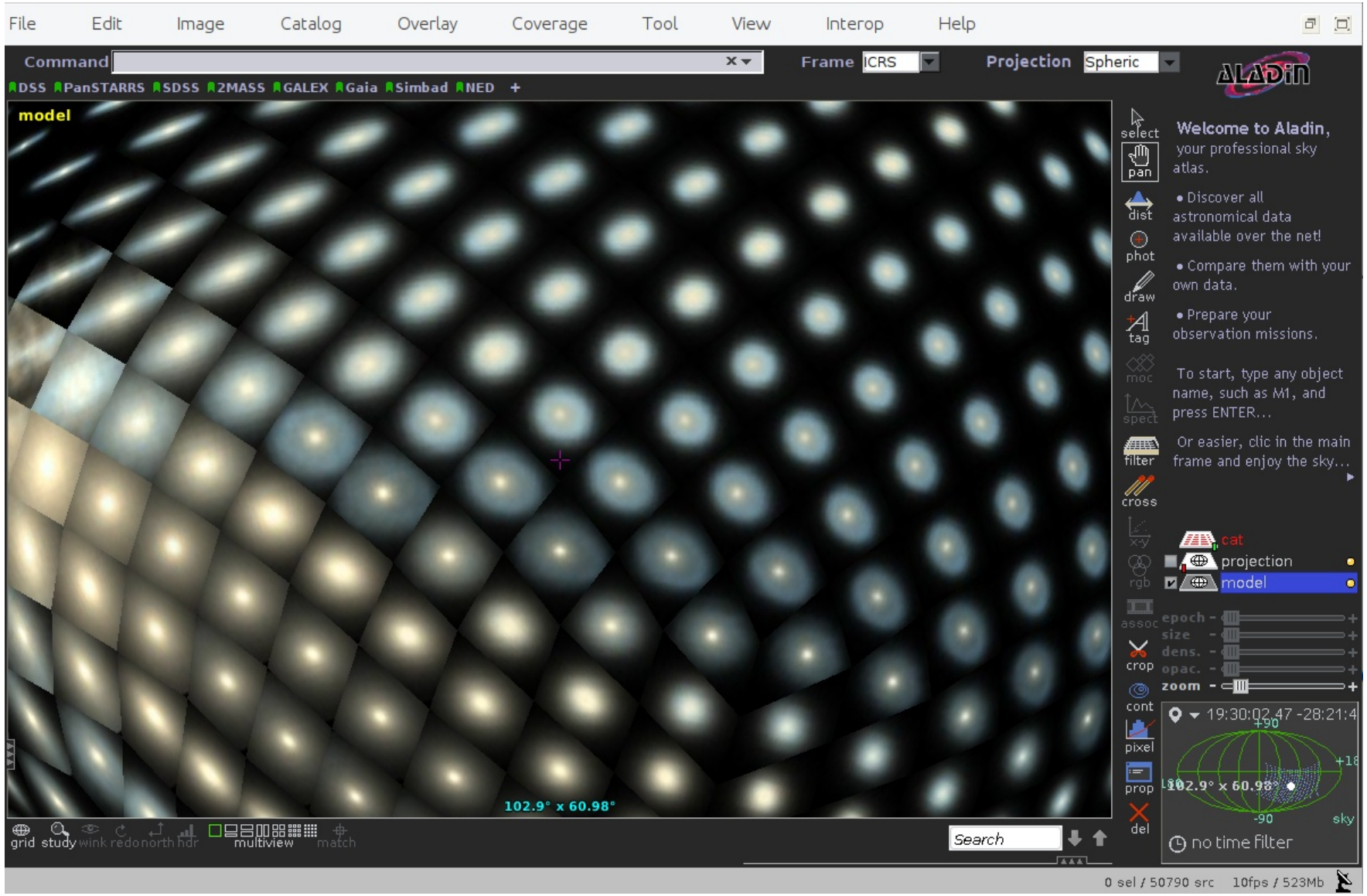
Demo with Aladin Lite :

https://space.h-its.org



Aladin Kai

Model



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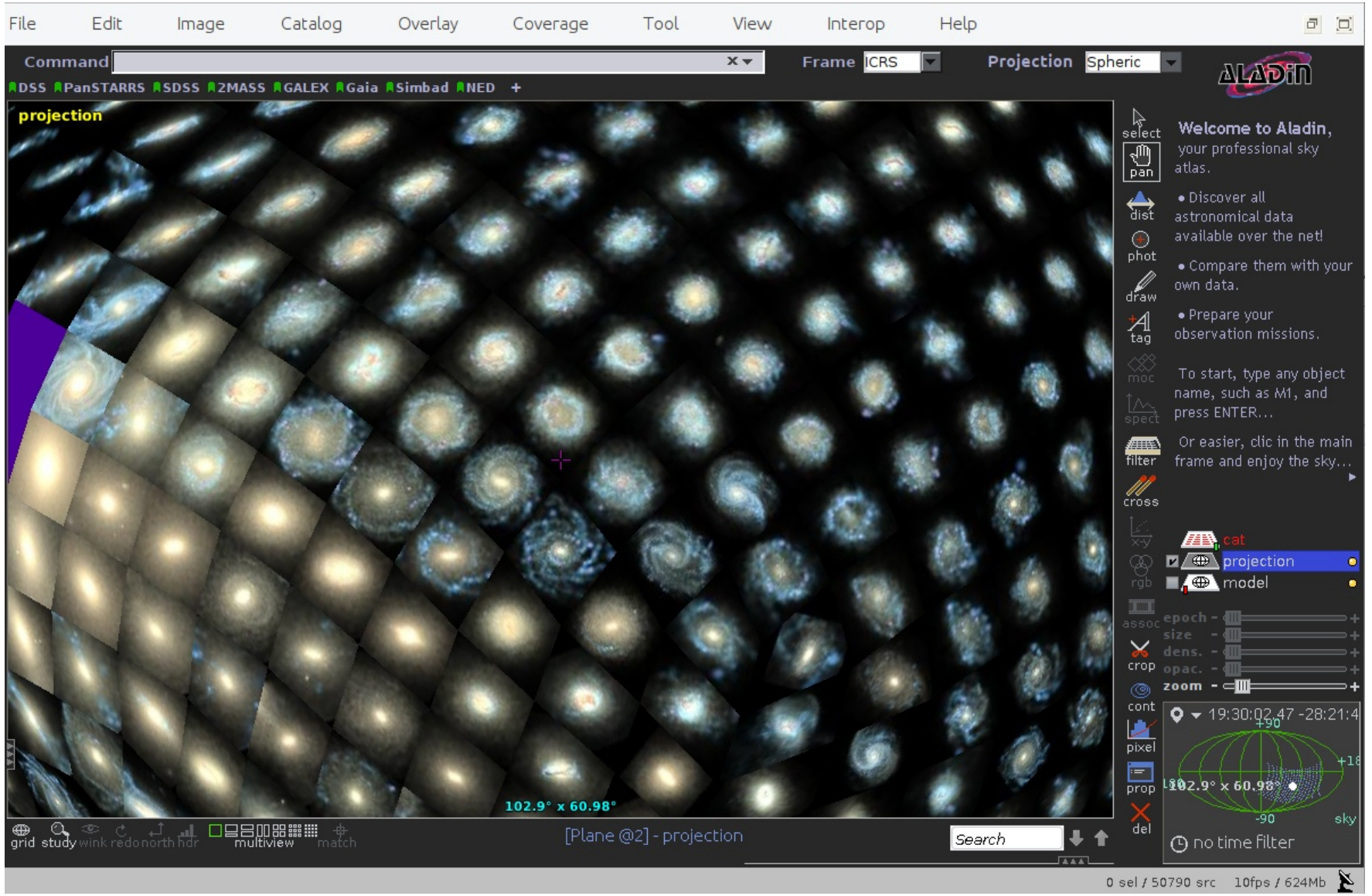
Projection of data



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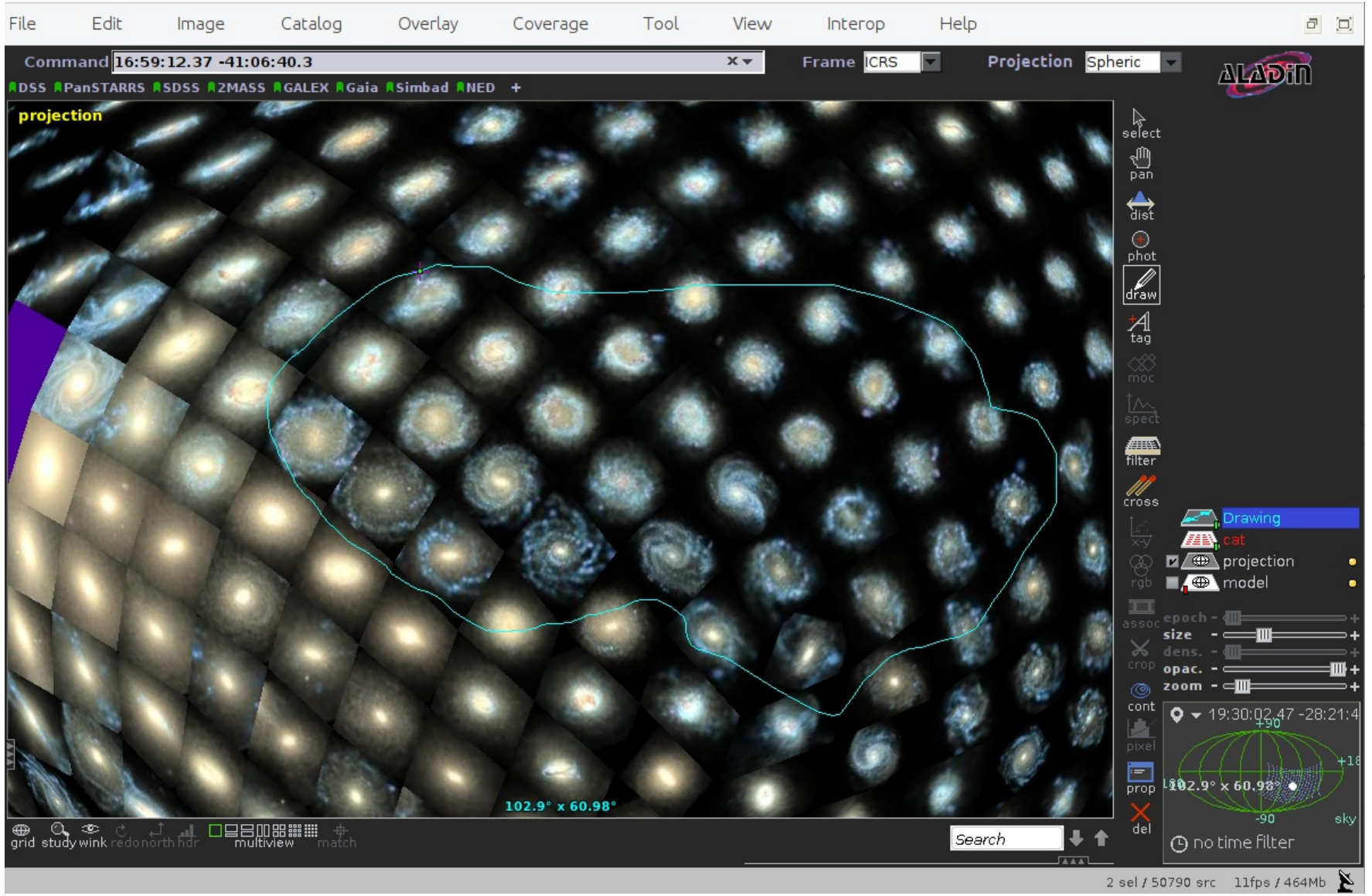
Mark an area



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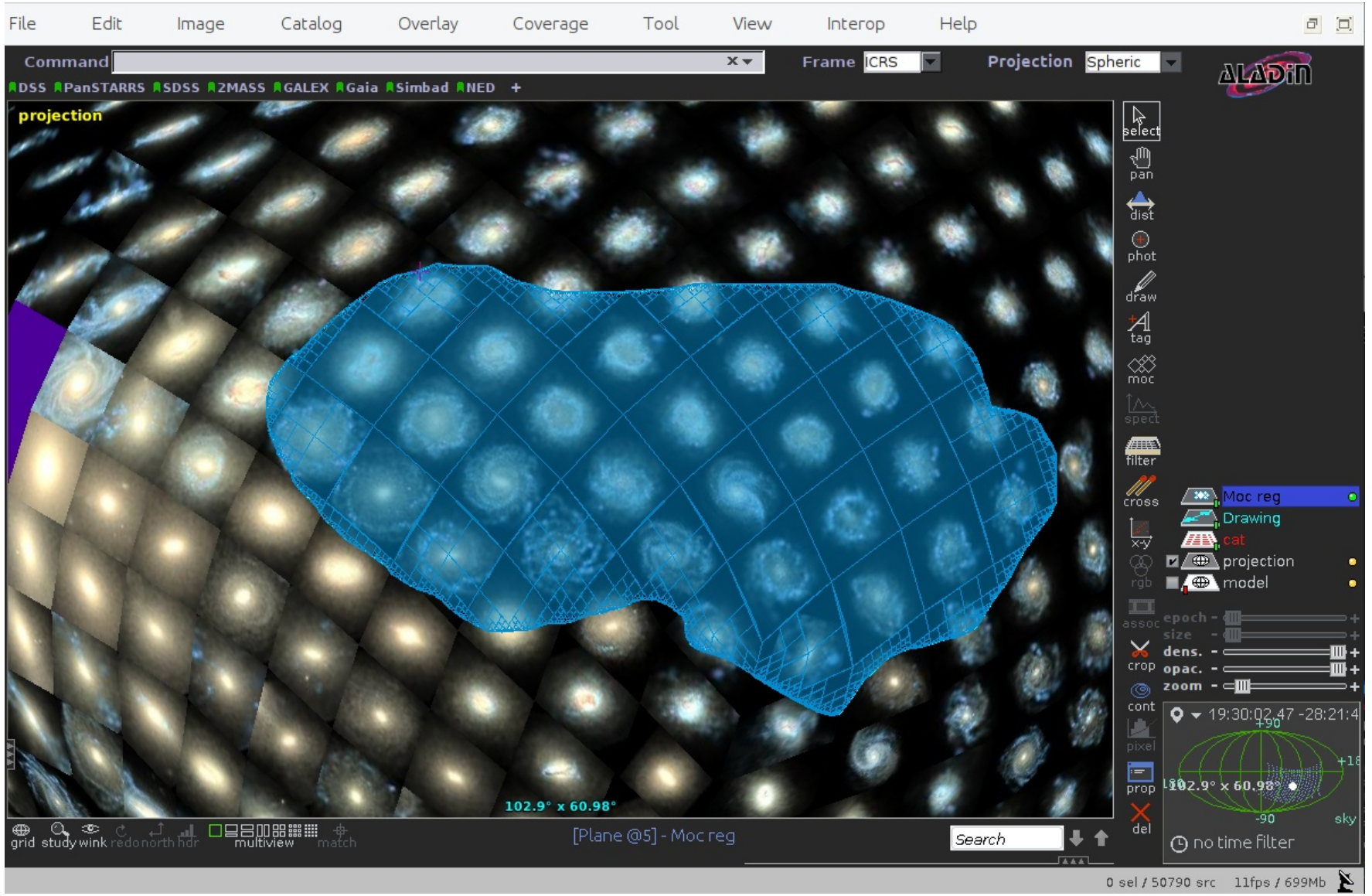
Create a MOC



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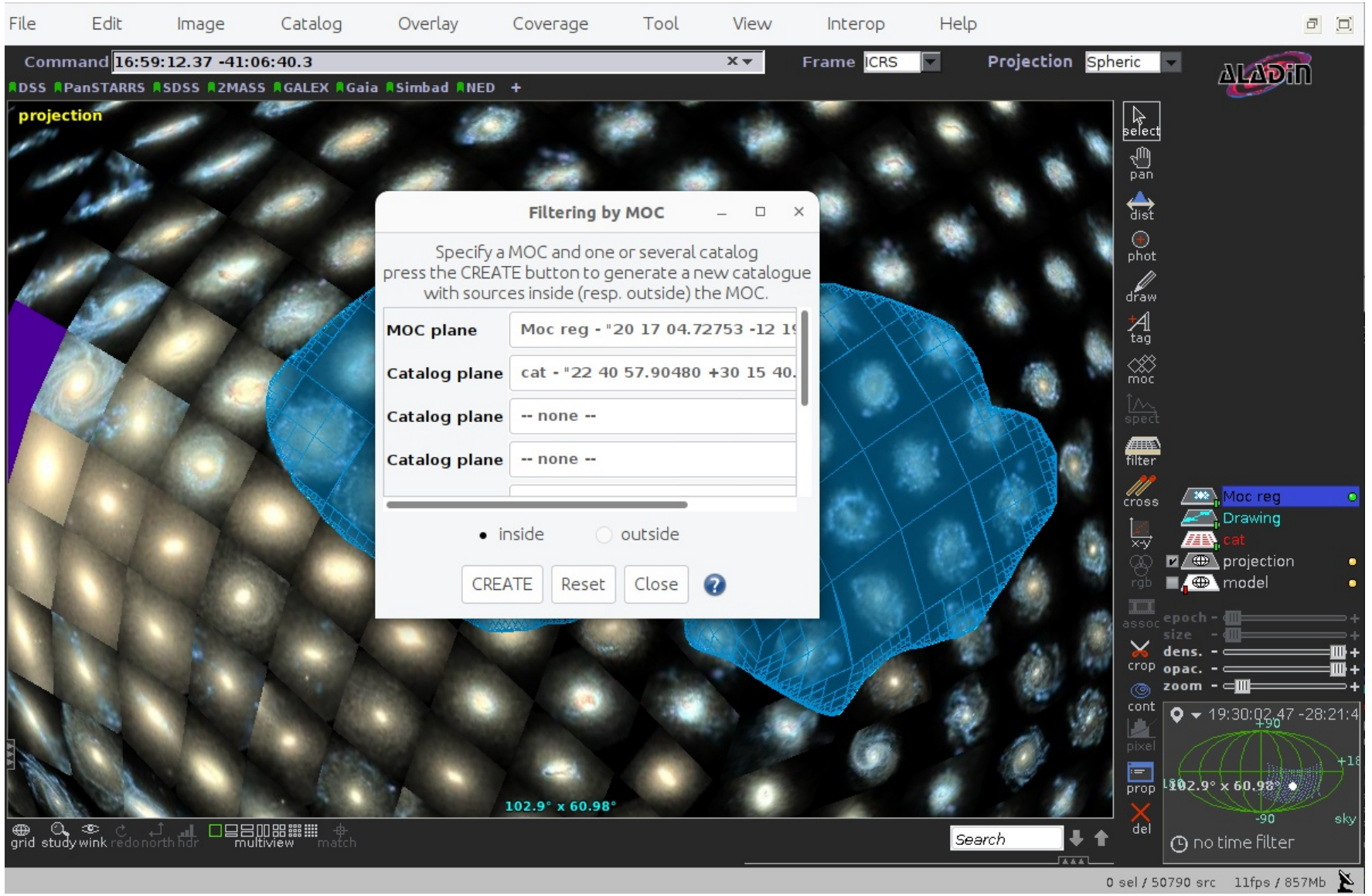
Filter catalog by MOC



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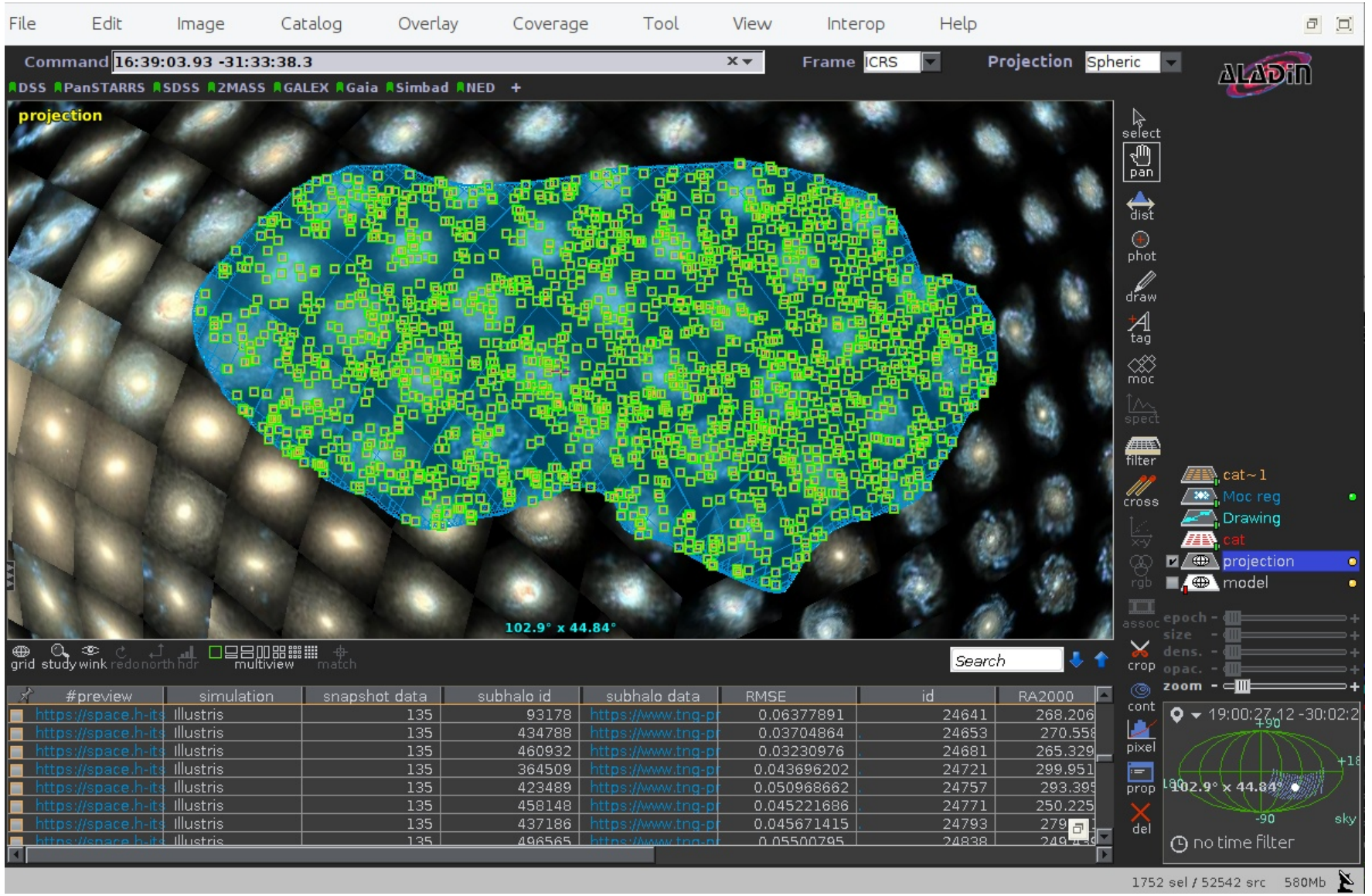
Individual catalog

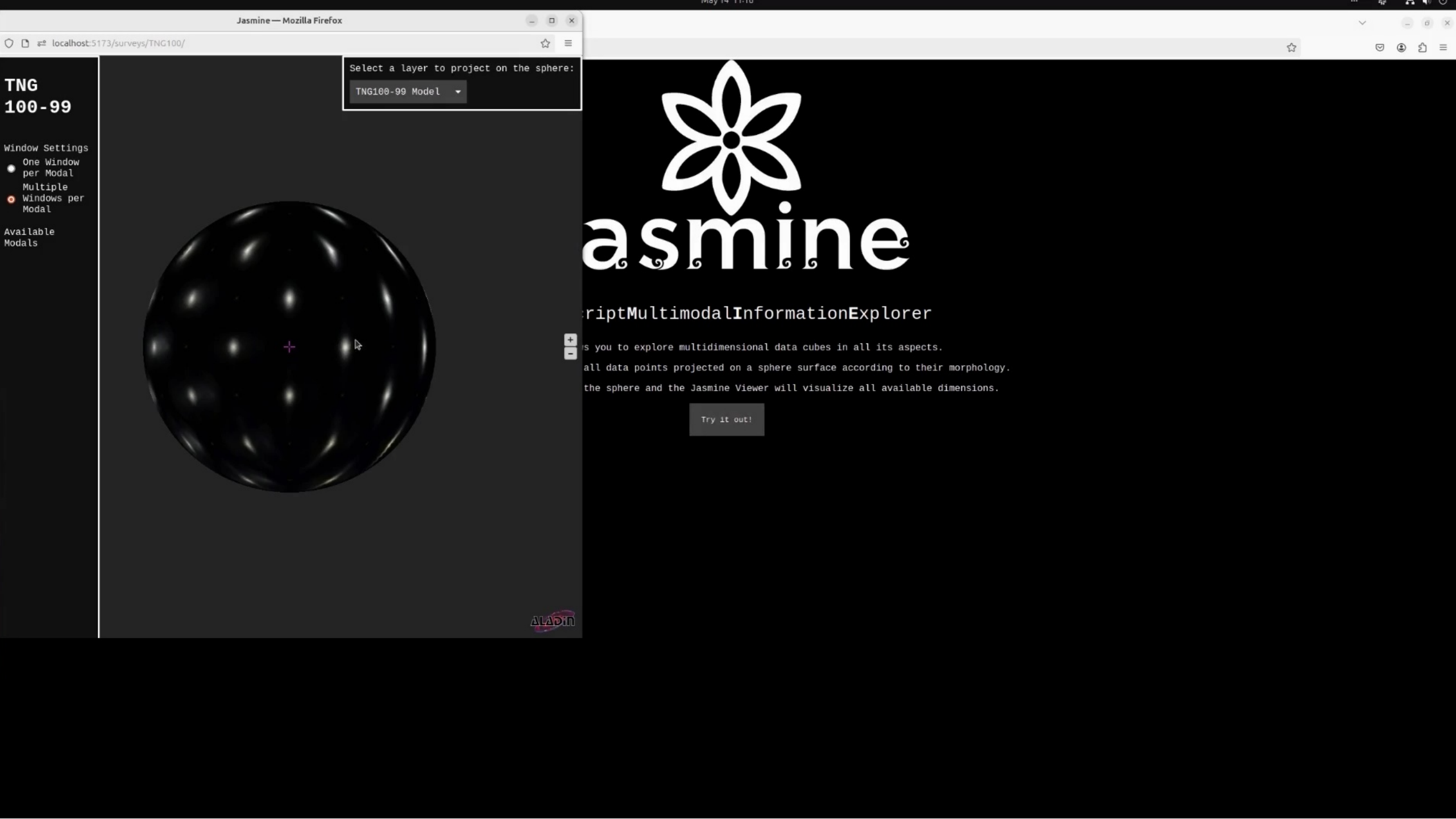


Jasmine

JAvaScript Multimodal INformation Explorer

Inspecting the rich data from simulations

- 3d point clouds
- Images
- Graph representations
- Spectra
- Text


Jasmine — Mozilla Firefox
localhost:5173/surveys/TNG100/
TNG
100-99
Window Settings
One Window per Modal
Multiple Windows per Modal
Available Modals
Select a layer to project on the sphere:
TNG100-99 Model
ALADIN
asmine
riptMultimodalInformationExplorer
s you to explore multidimensional data cubes in all its aspects.
all data points projected on a sphere surface according to their morphology.
the sphere and the Jasmine Viewer will visualize all available dimensions.
Try it out!

Questions

- How to orchestrated complex interaction between tools?
- How to connect web services?
- How to persist / reproduce?
- Is SAMP sufficient?
- Cross Browser / APP communication?

Acknowledgments

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SPACE

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