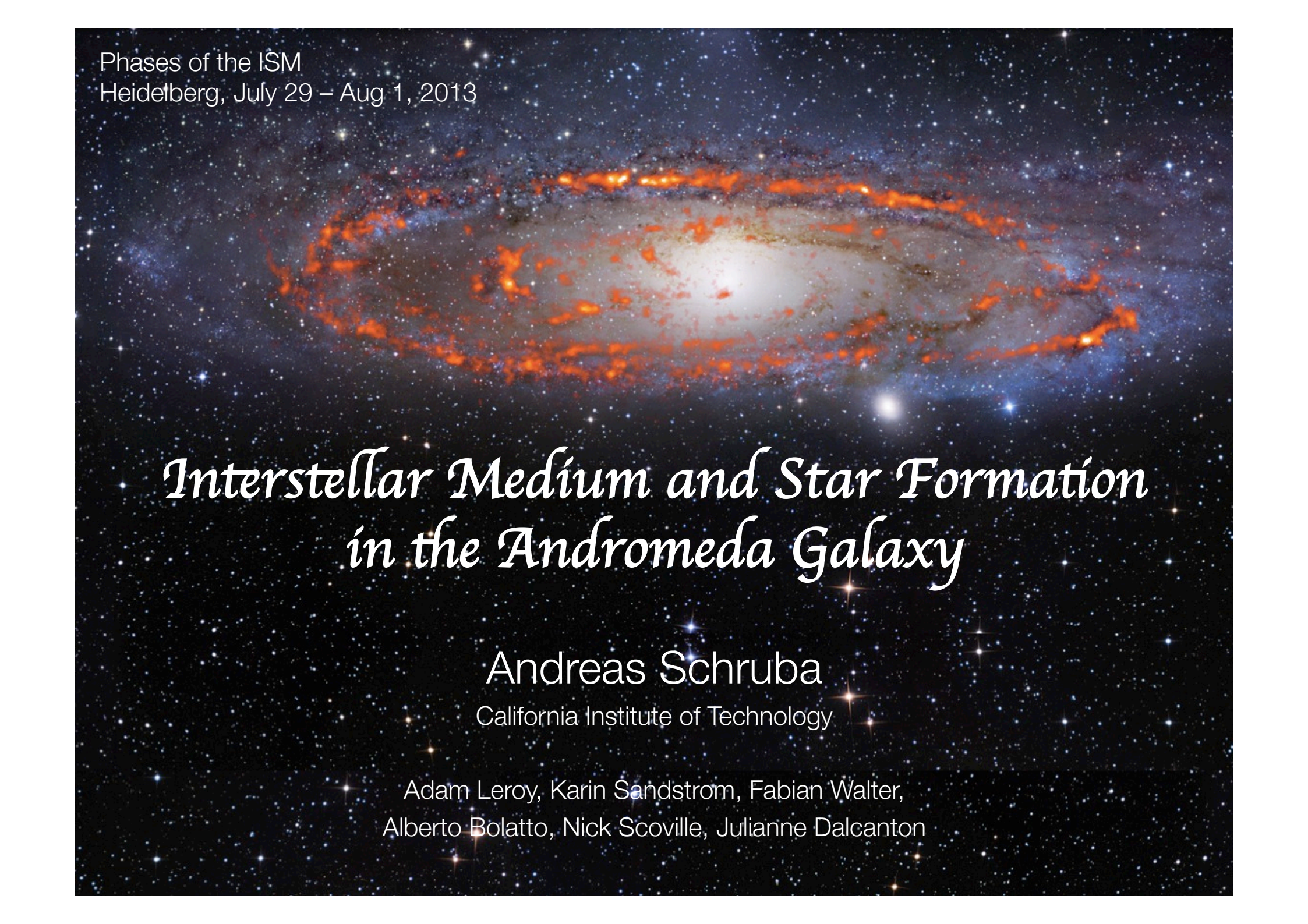


Phases of the ISM
Heidelberg, July 29 – Aug 1, 2013

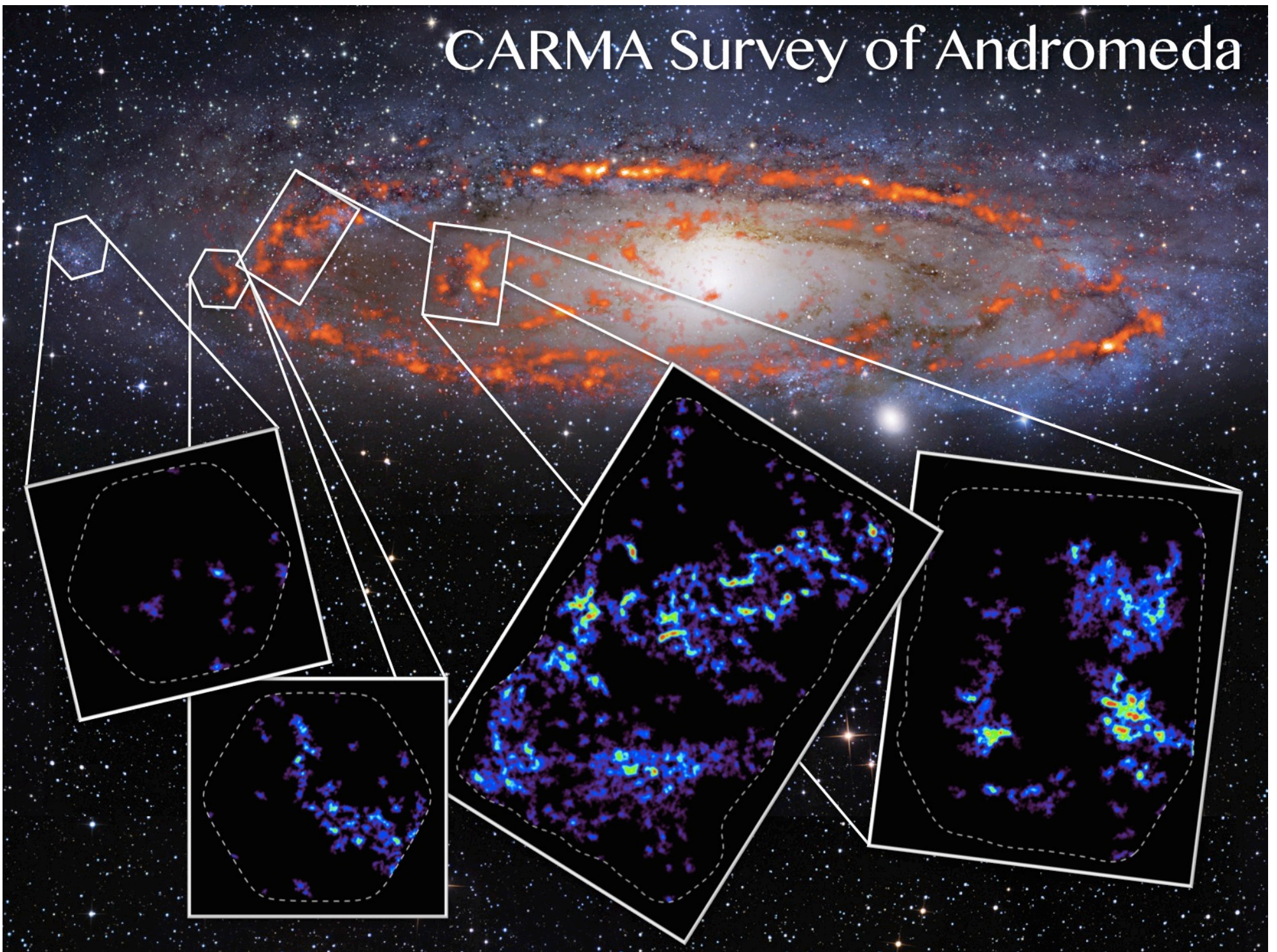


*Interstellar Medium and Star Formation
in the Andromeda Galaxy*

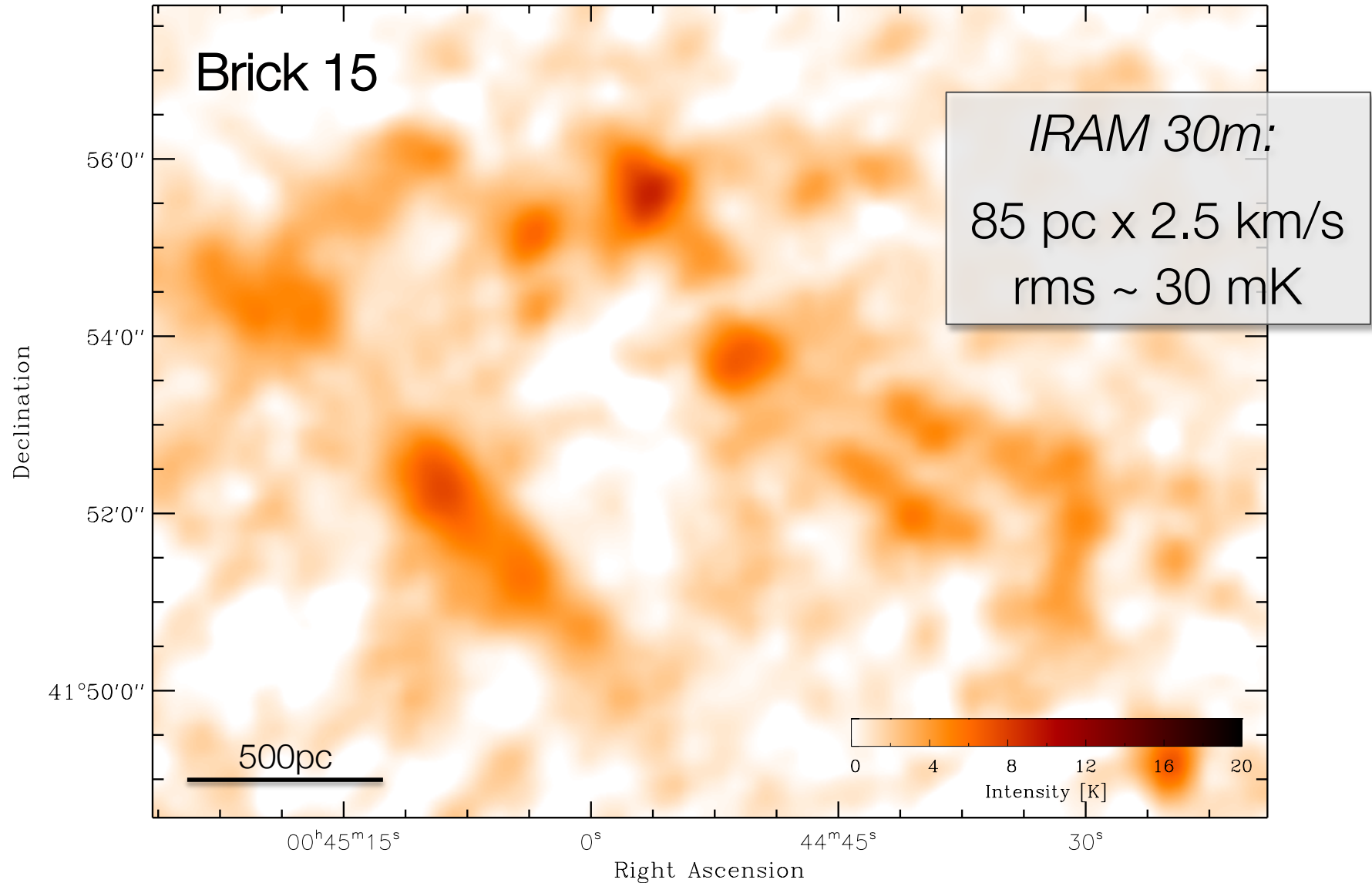
Andreas Schruba
California Institute of Technology

Adam Leroy, Karin Sandstrom, Fabian Walter,
Alberto Bolatto, Nick Scoville, Julianne Dalcanton

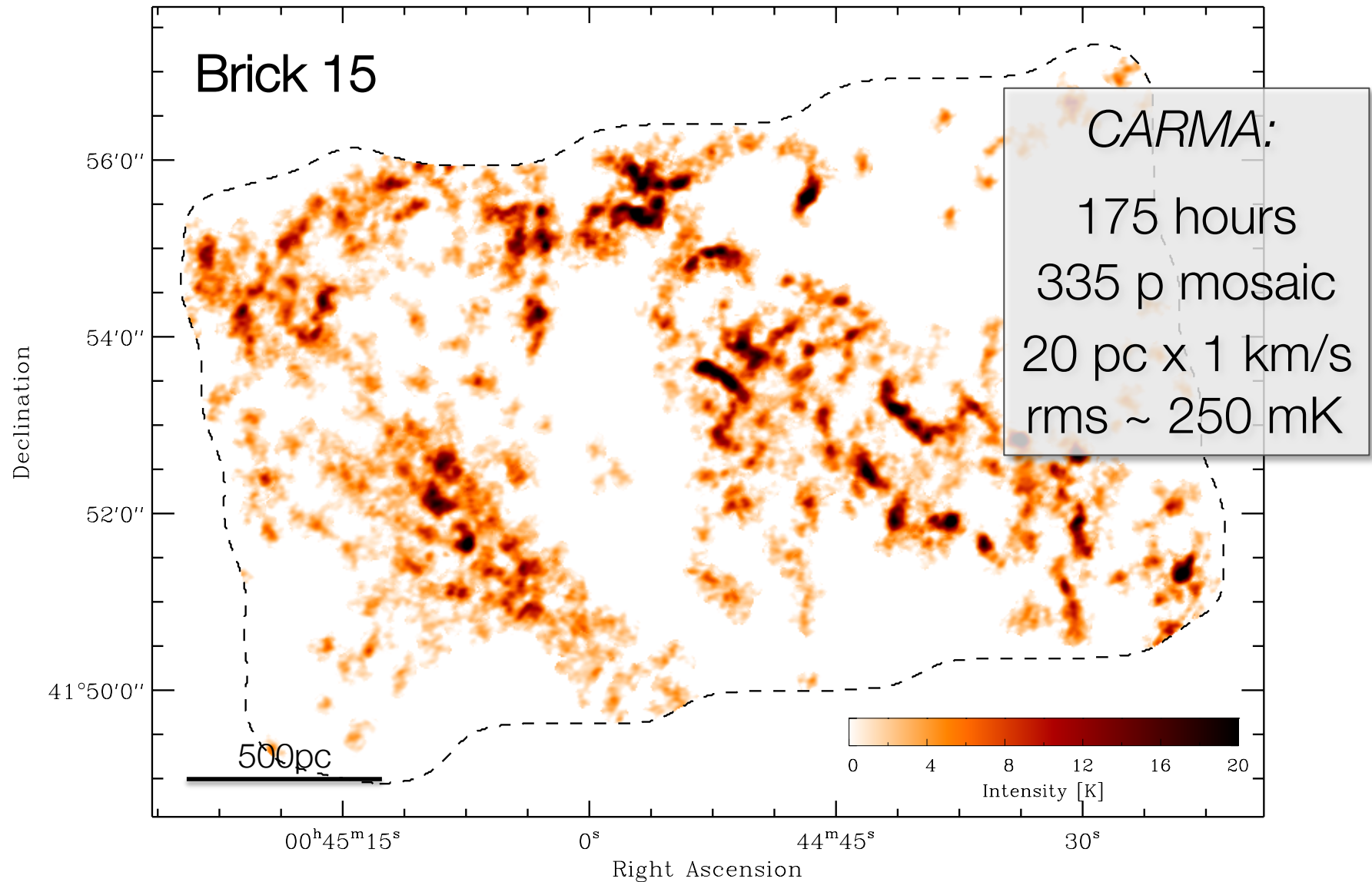
CARMA Survey of Andromeda



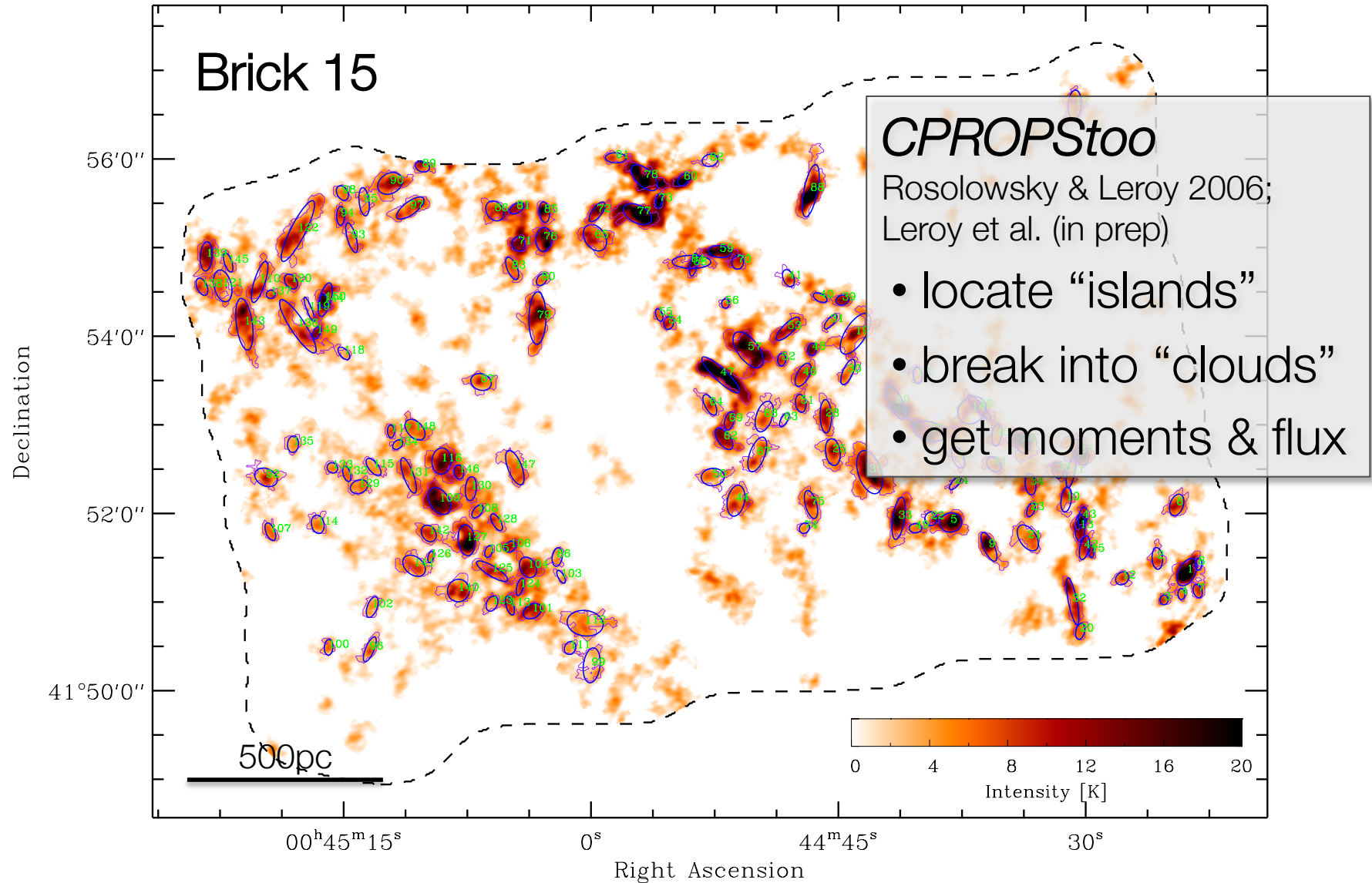
CO Map from IRAM 30m



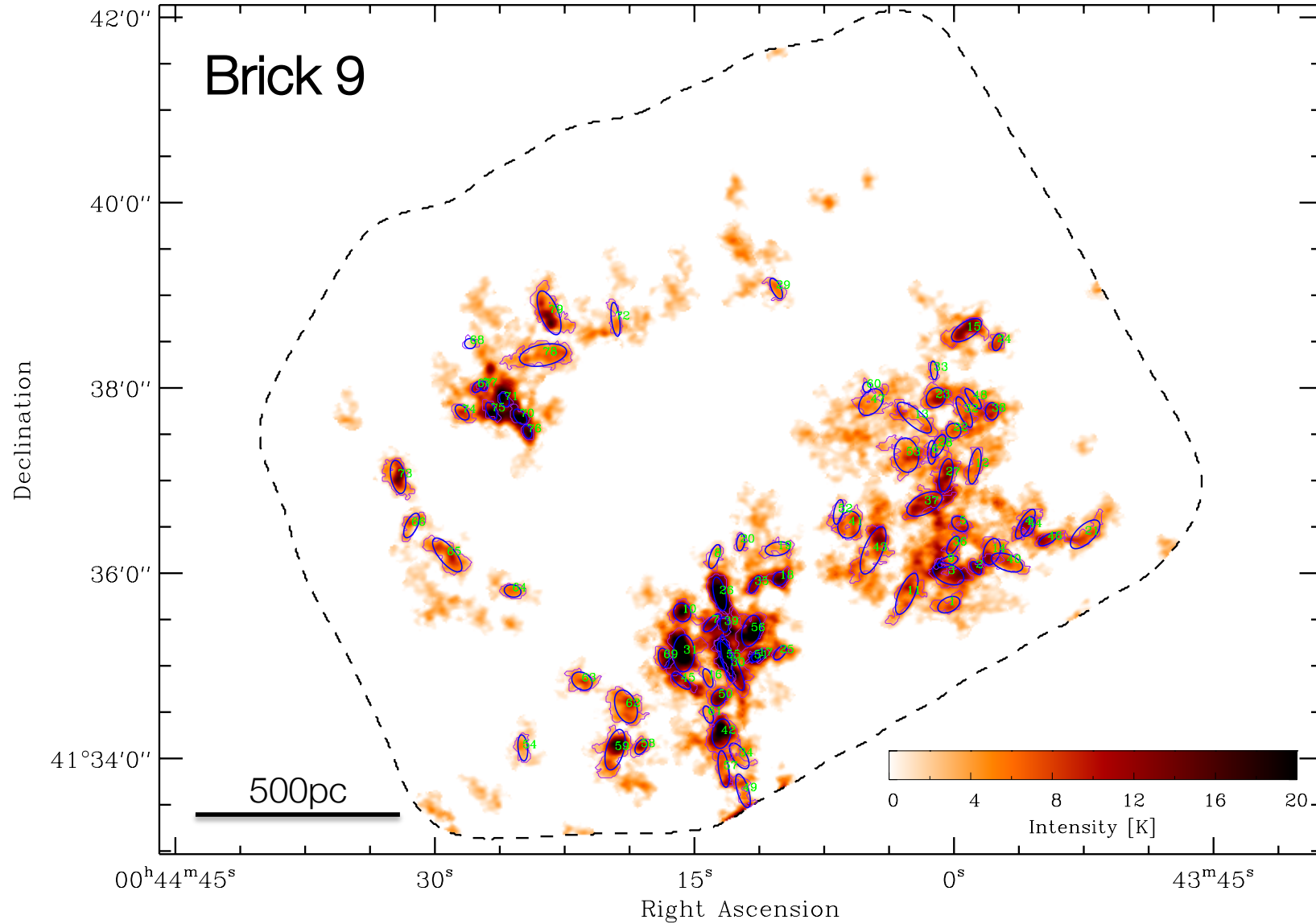
CO Map from CARMA



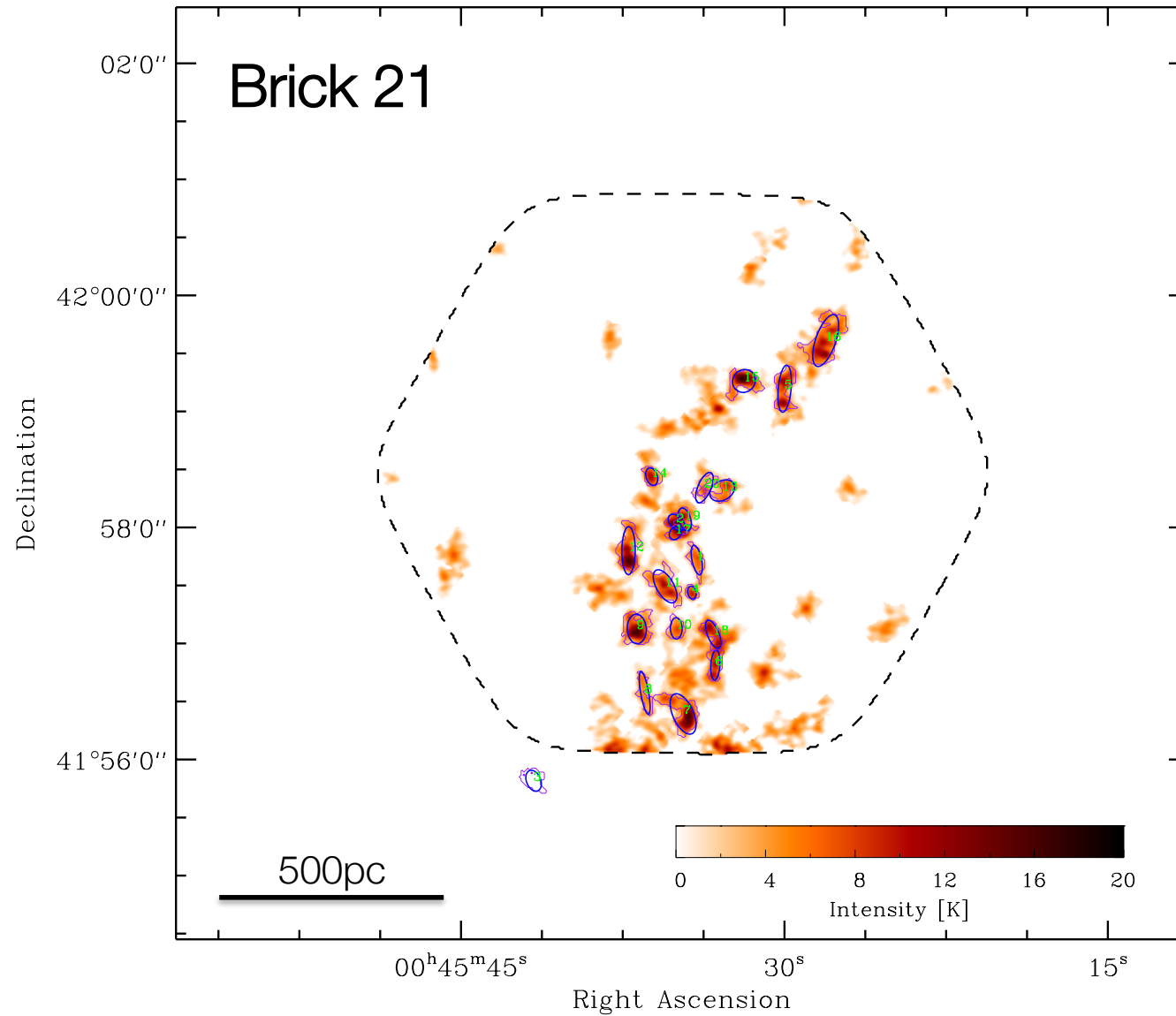
Cloud Decomposition



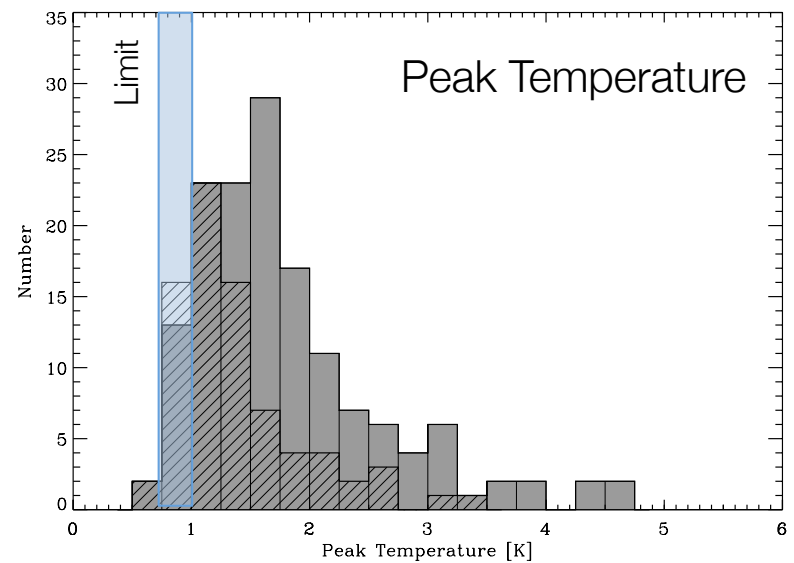
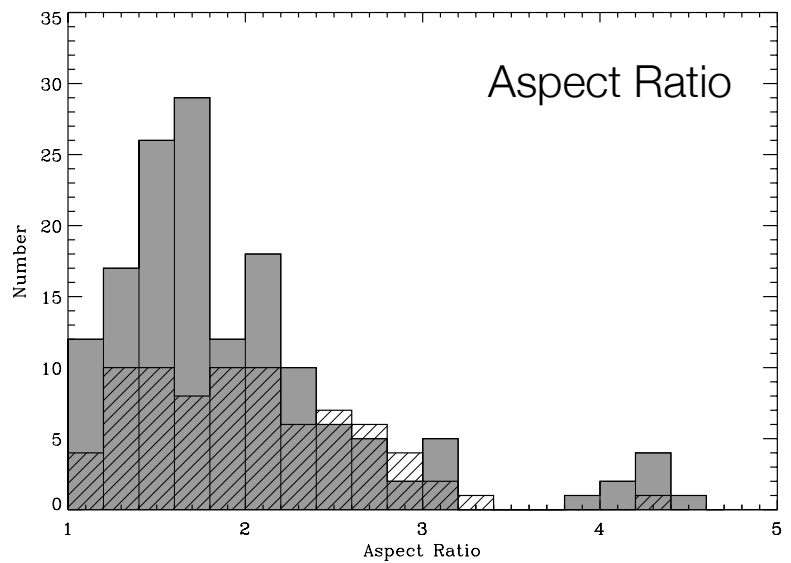
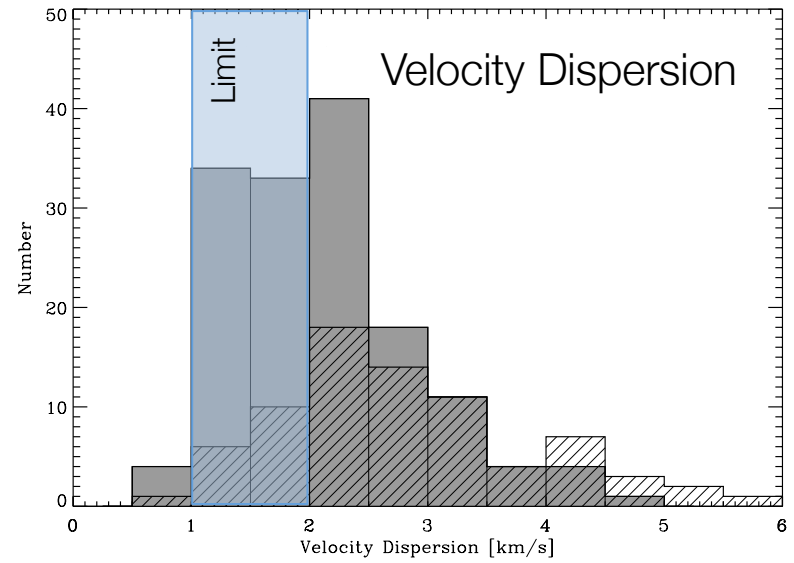
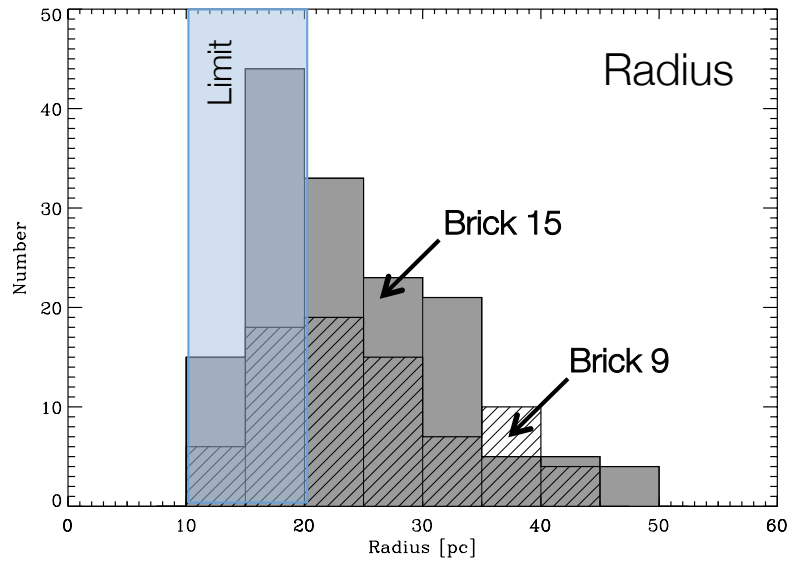
Cloud Decomposition



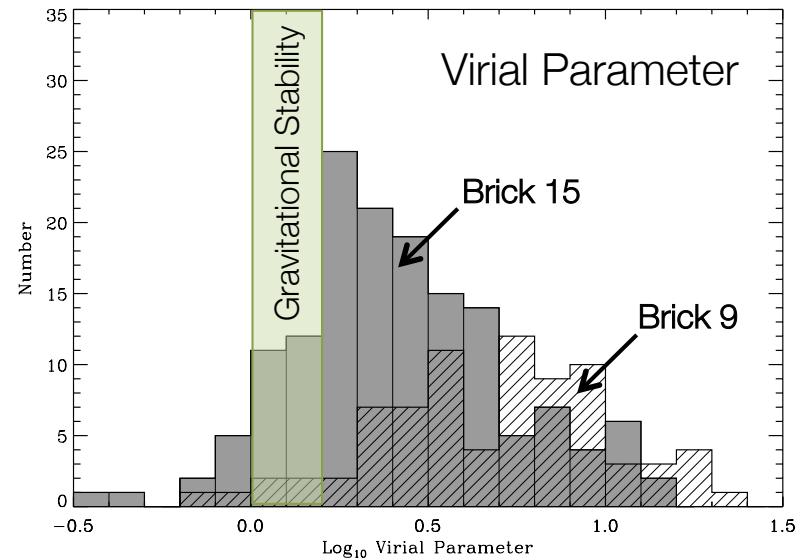
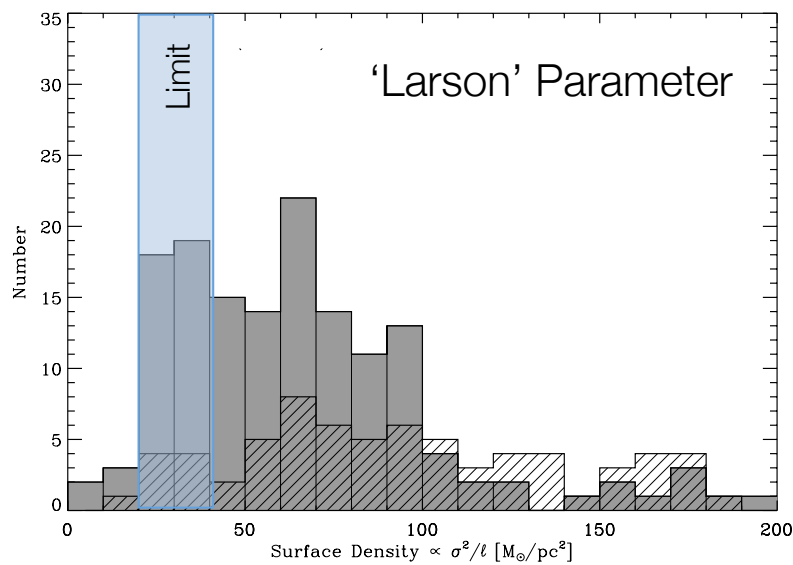
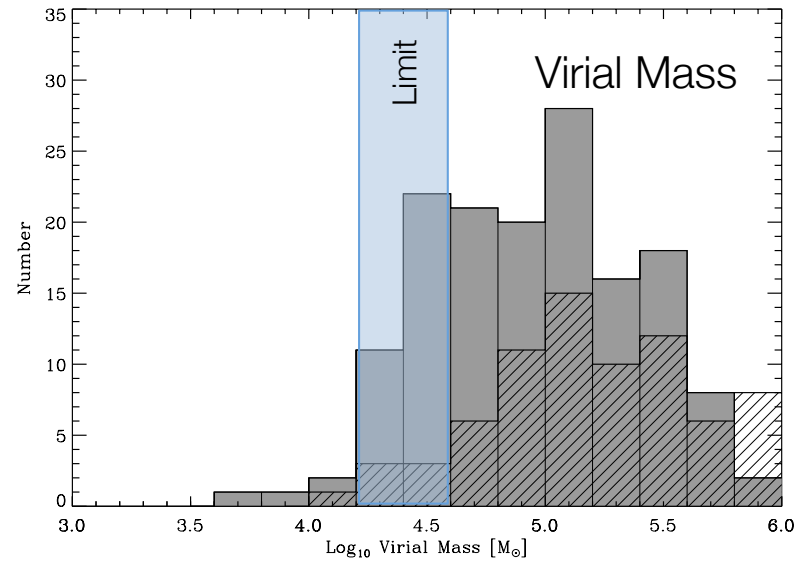
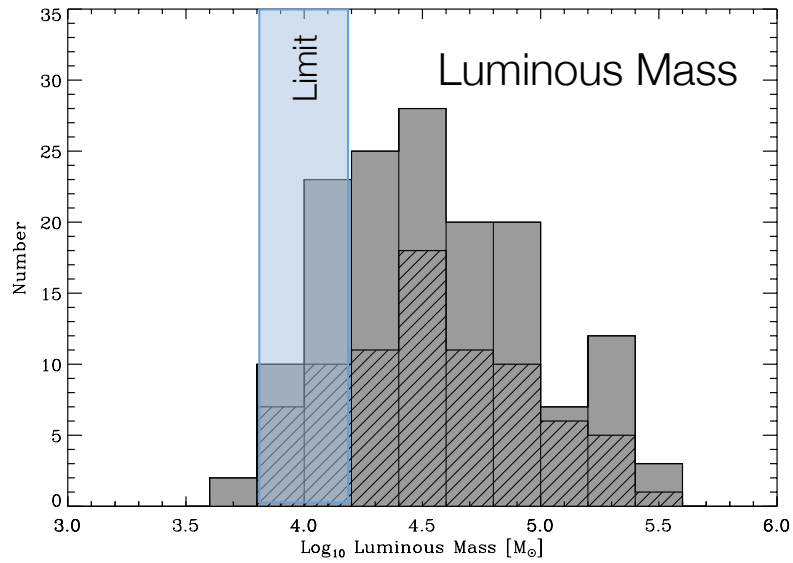
Cloud Decomposition



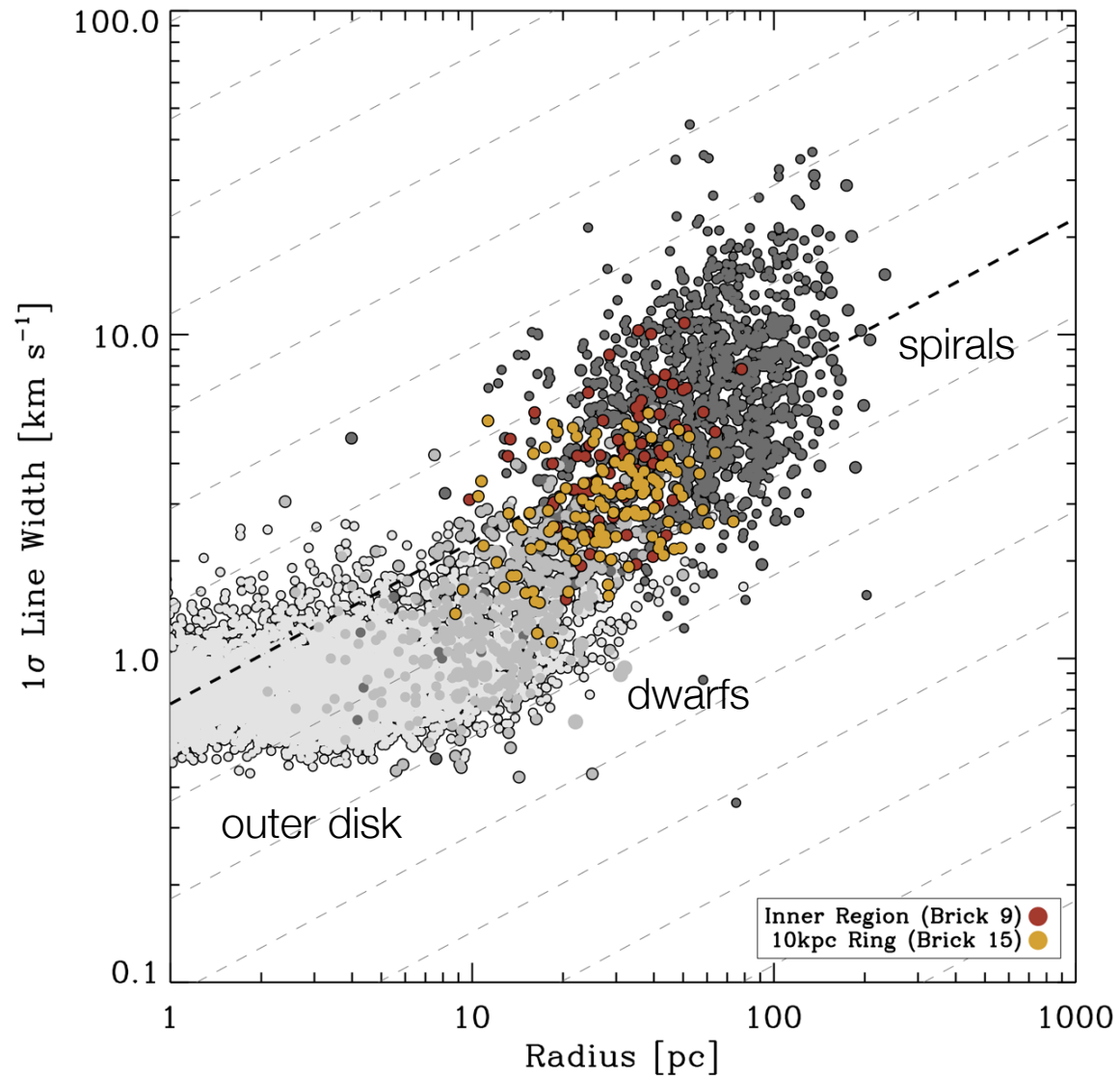
Cloud Properties I



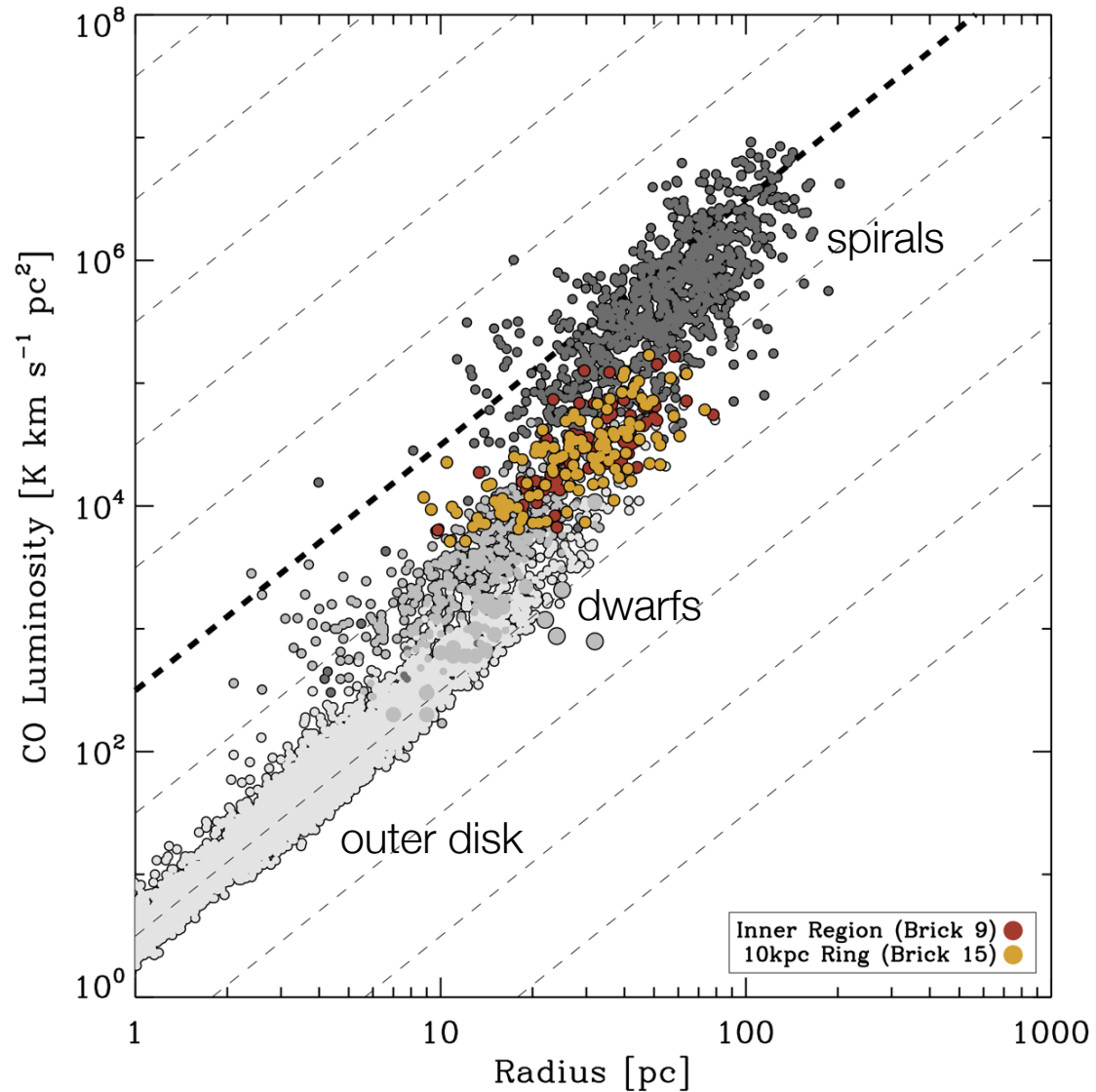
Cloud Properties II



Linewidth – Size Relation

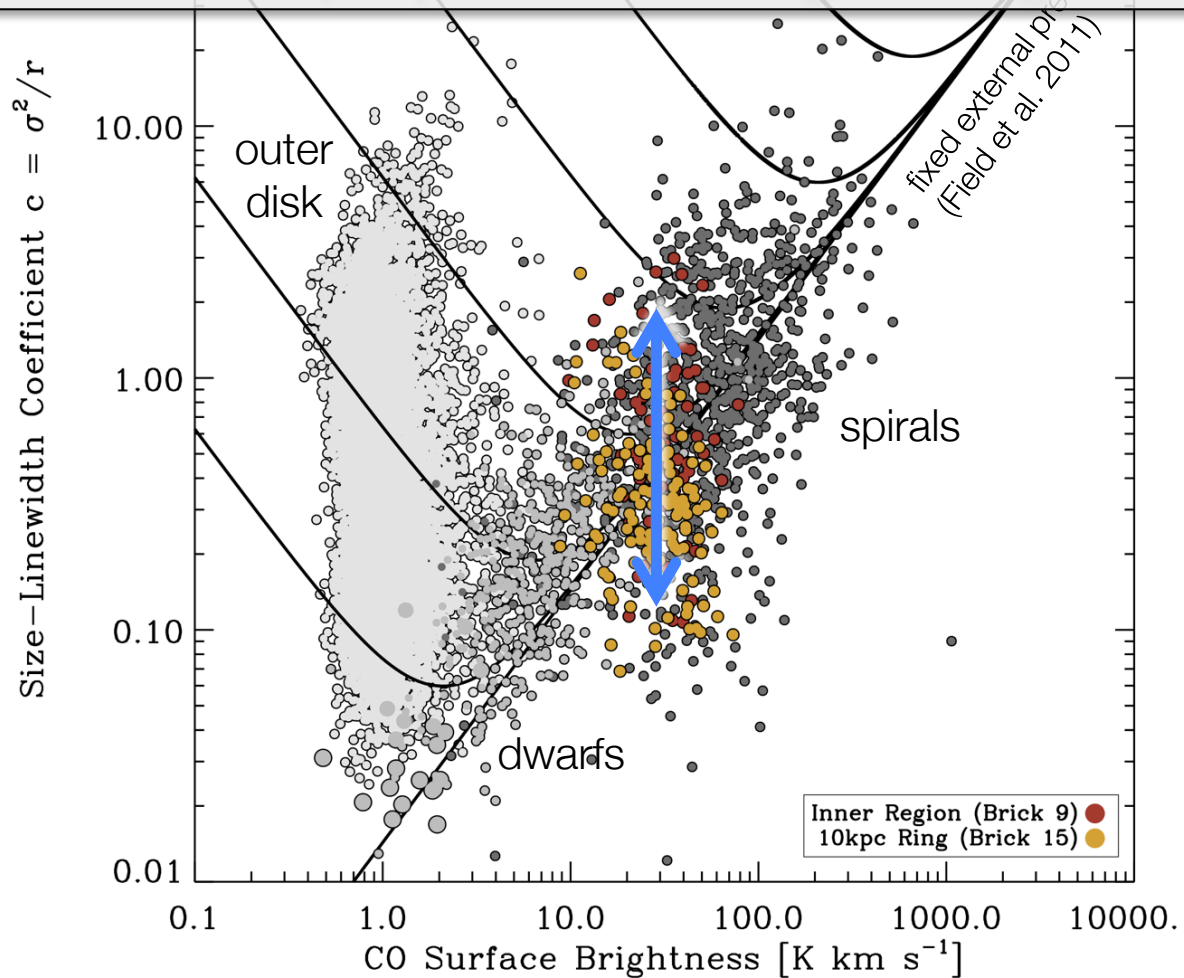


Luminosity – Radius Relation

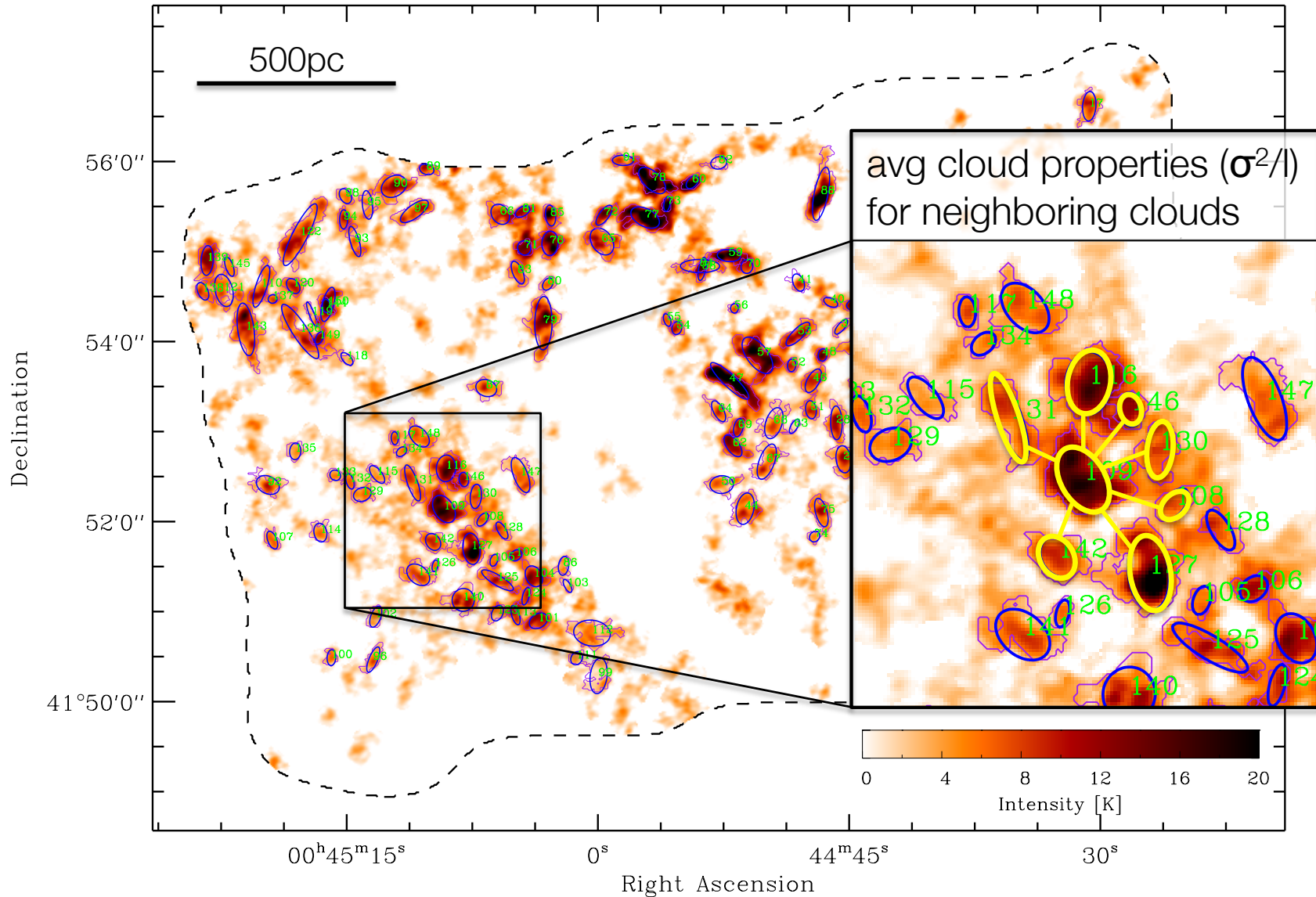


Larson's "Parameter"

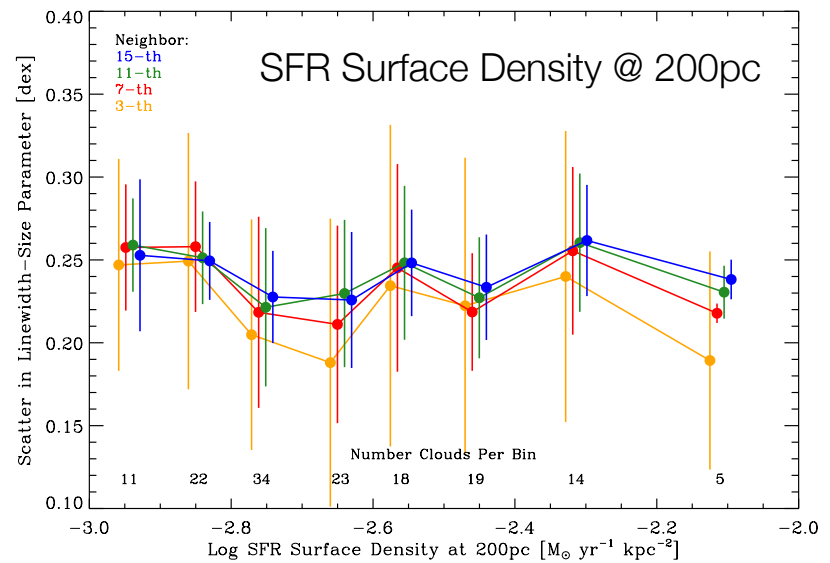
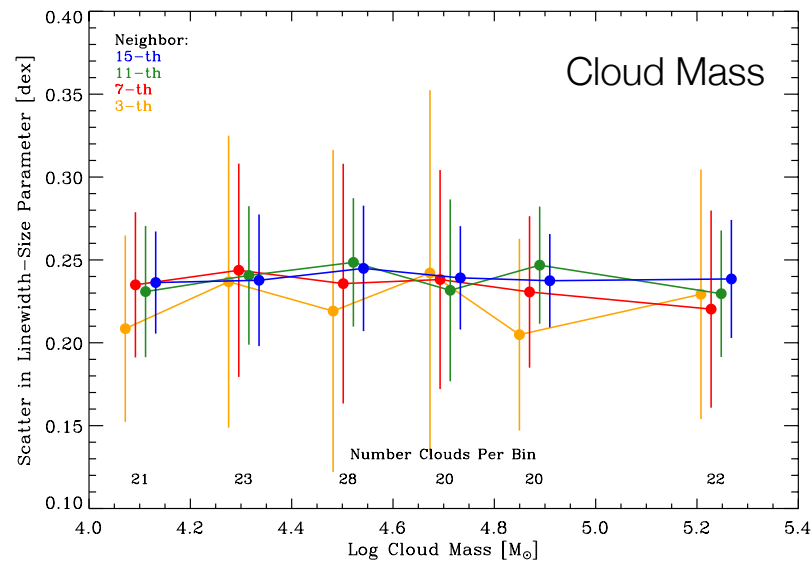
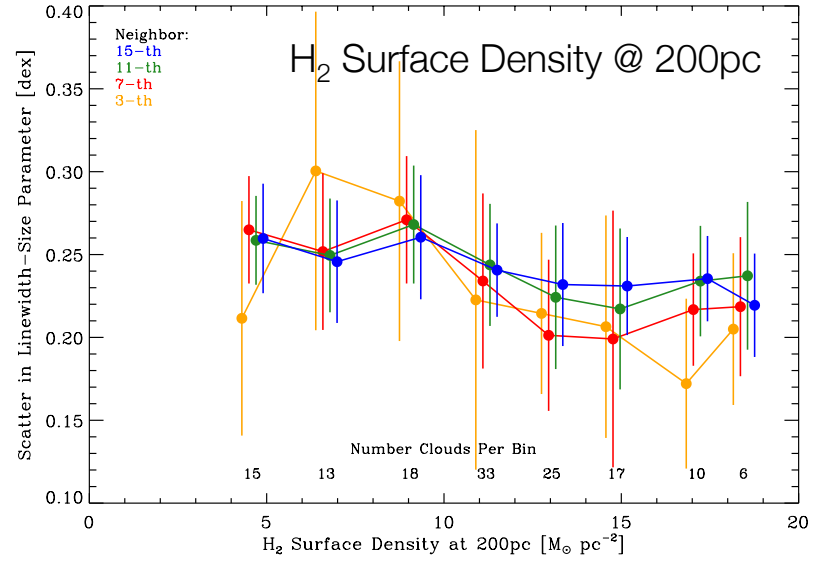
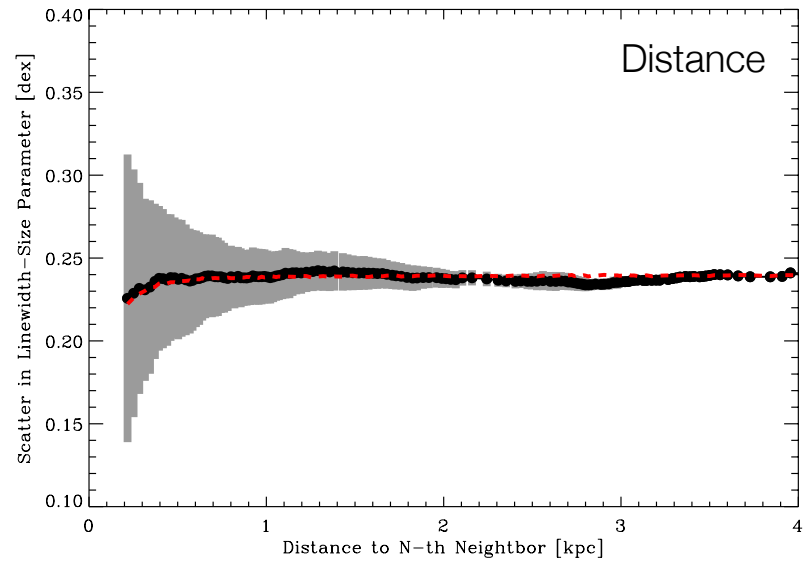
What controls nature of clouds (ie offsets)?
... concordance of properties for neighboring clouds?



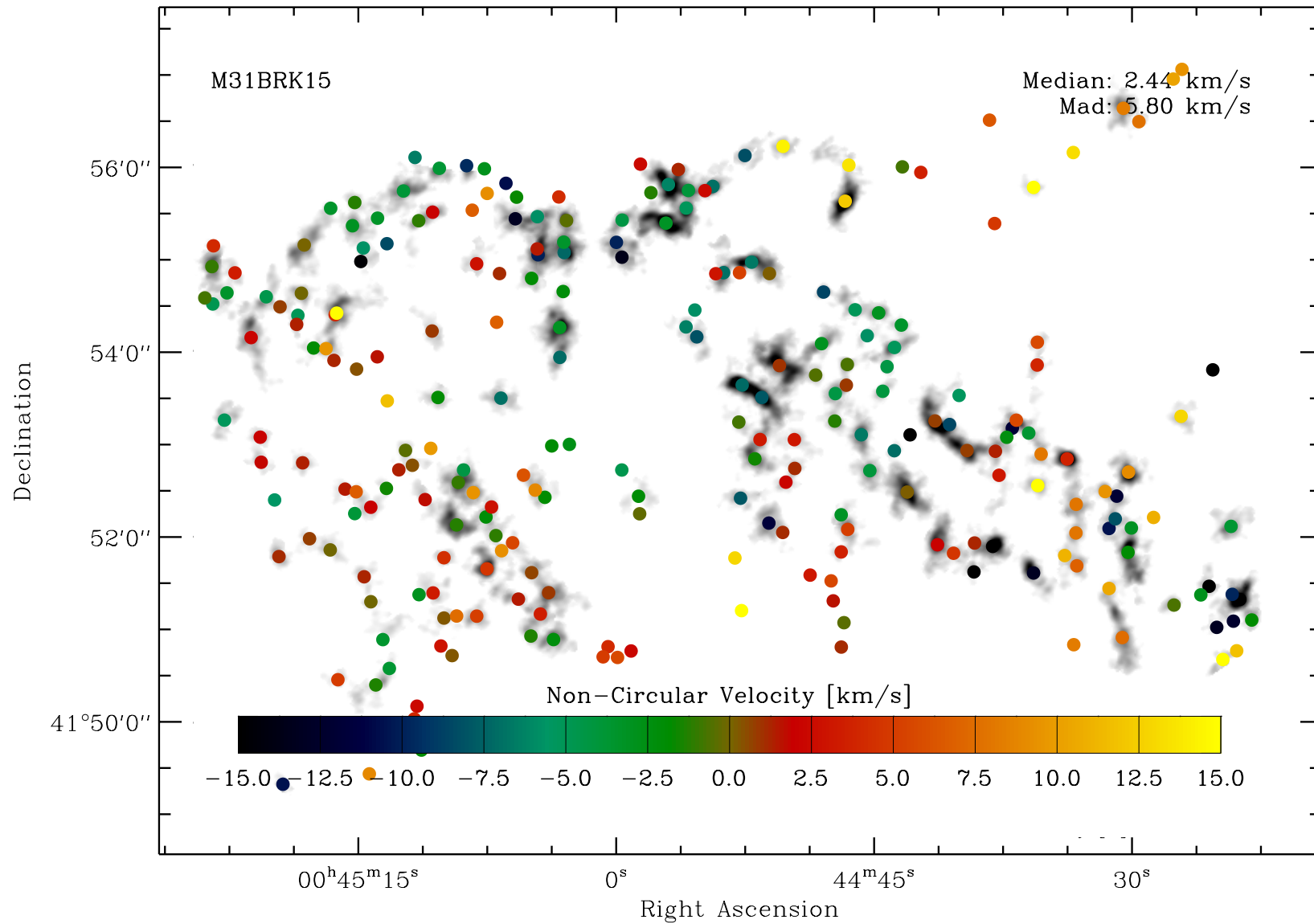
Concordance of Cloud Nature?



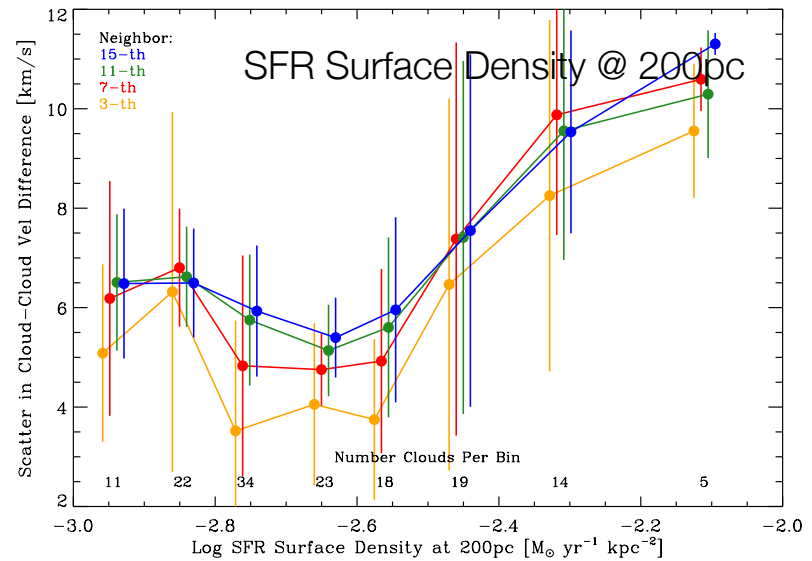
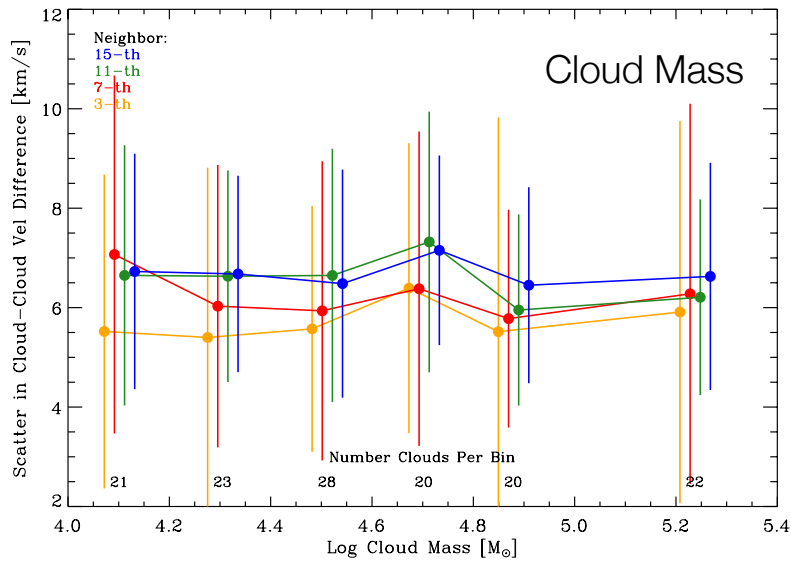
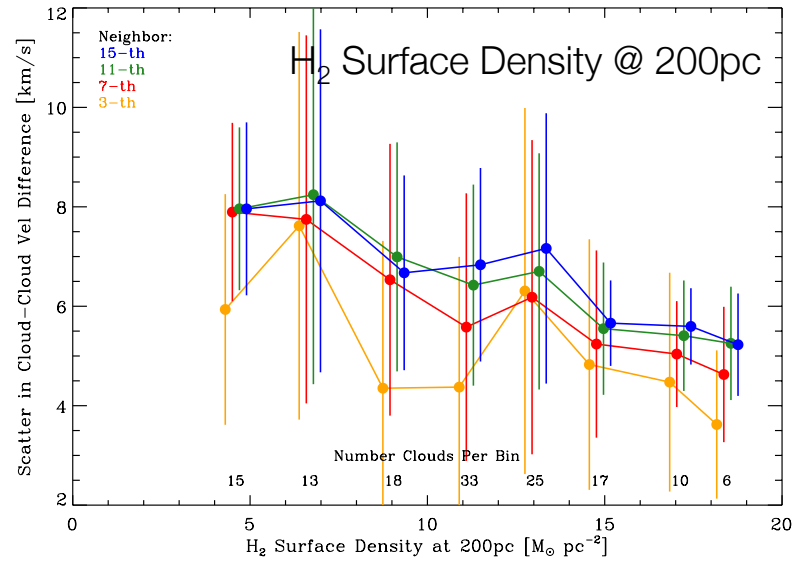
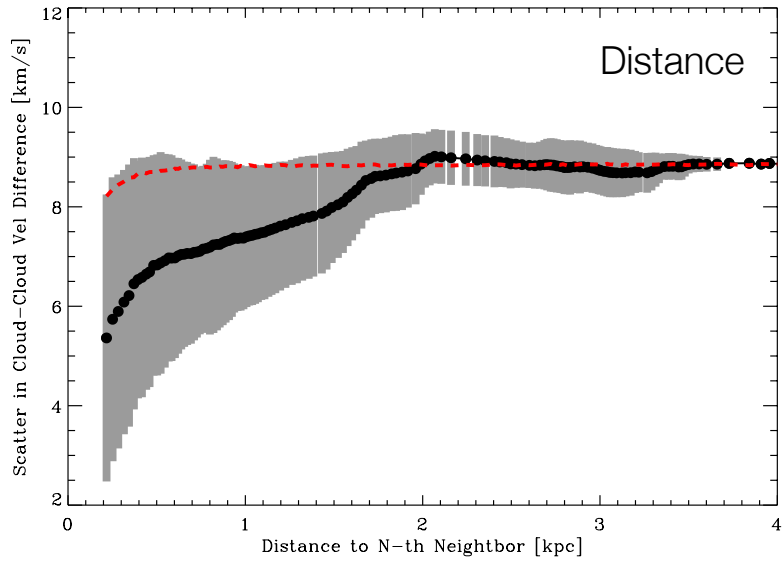
Concordance of Cloud Nature?



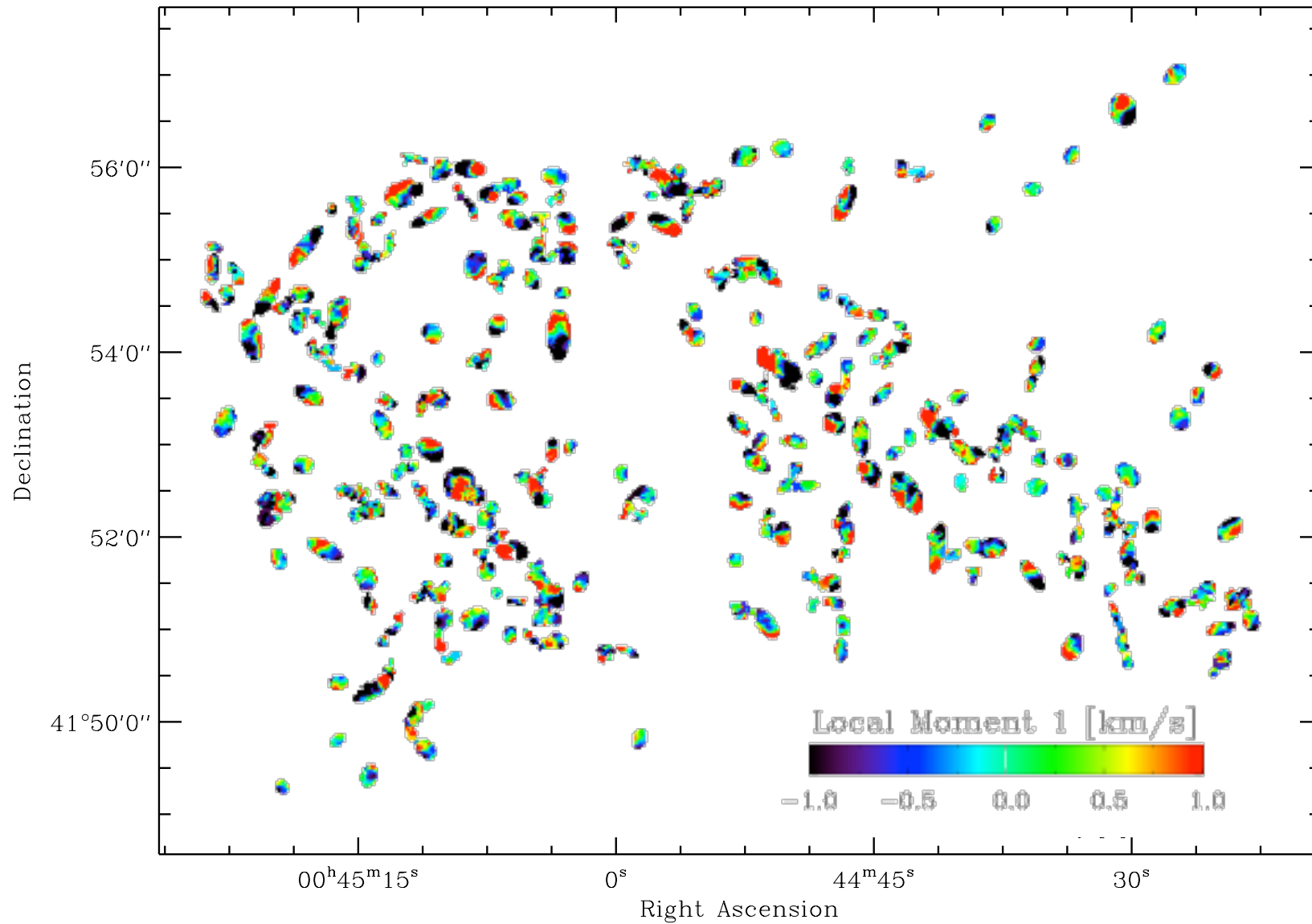
Cloud Motions



Concordance of Cloud Motions?

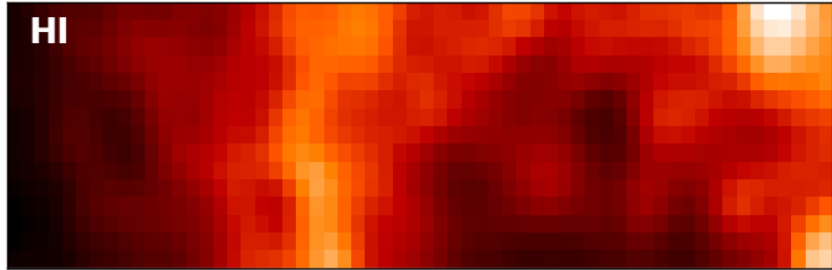
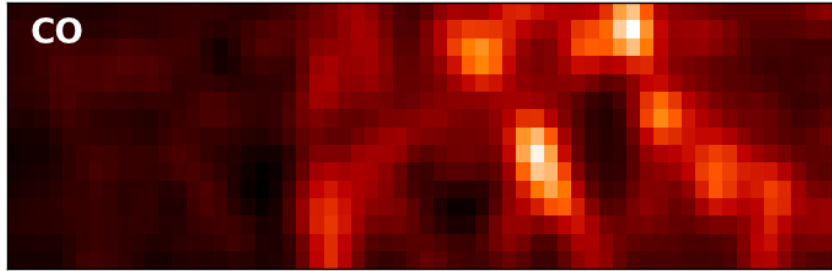
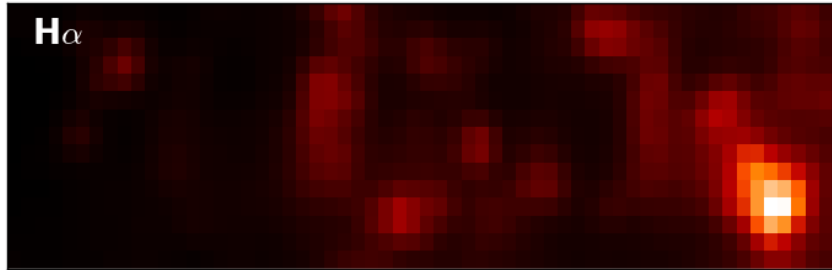
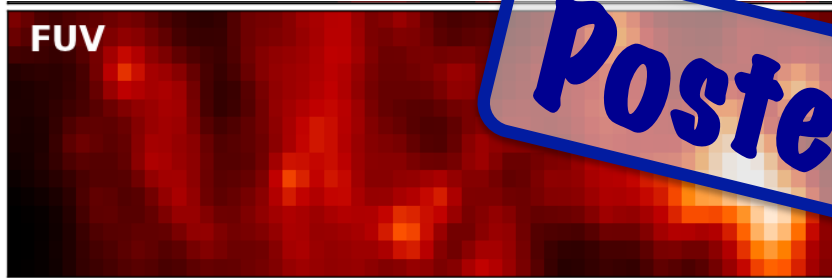
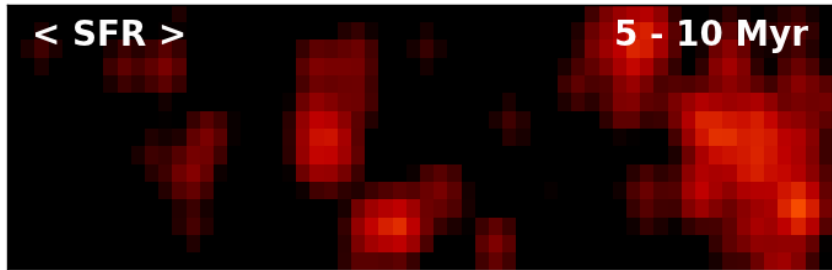
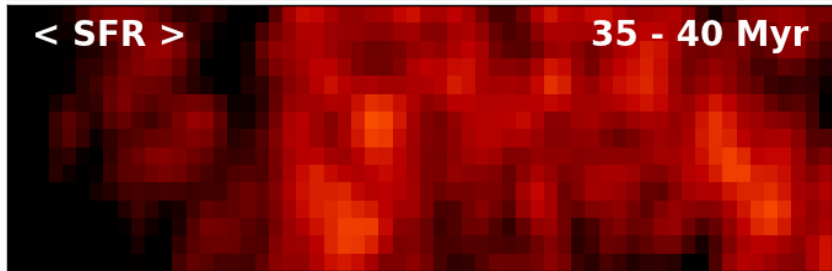
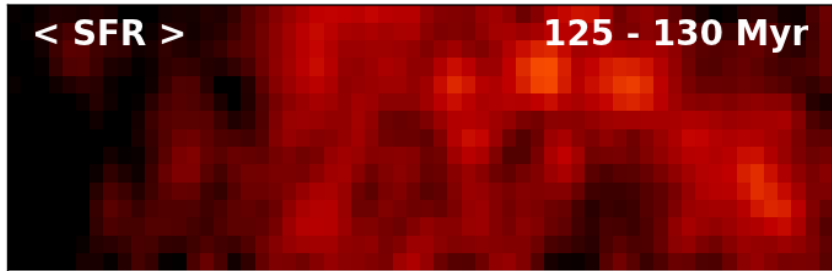
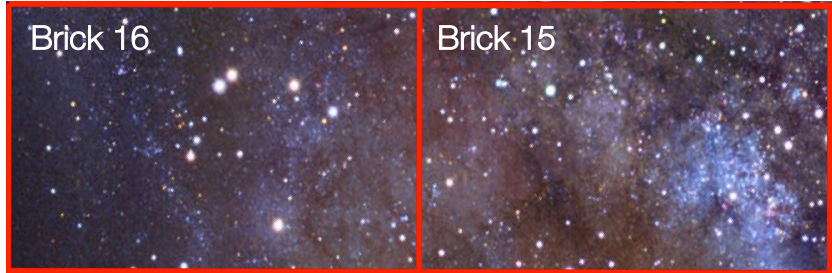


Cloud Dynamics



PHAT SF Histories

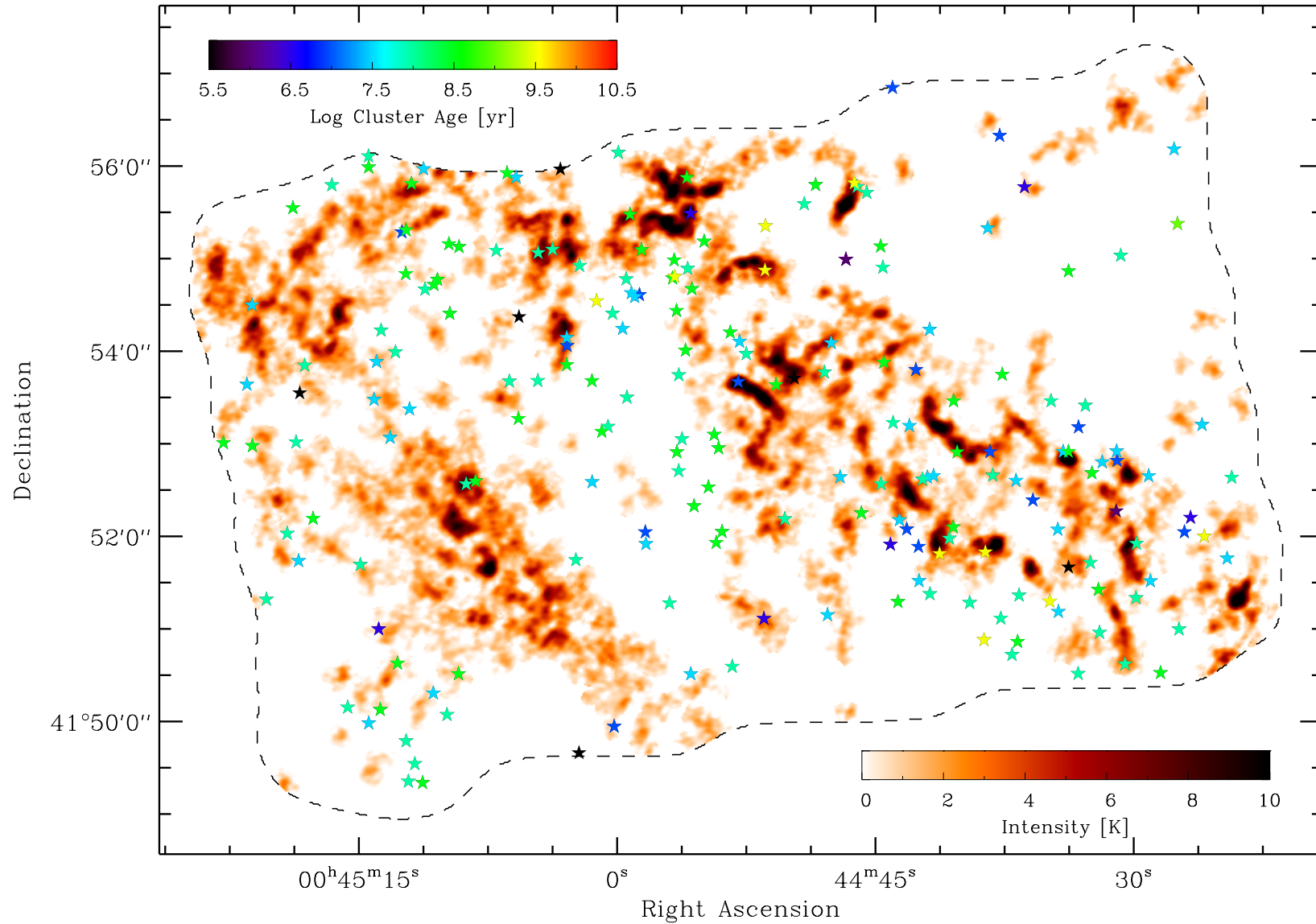
Grad: Alexia Lewis
(U Washington)



Poster

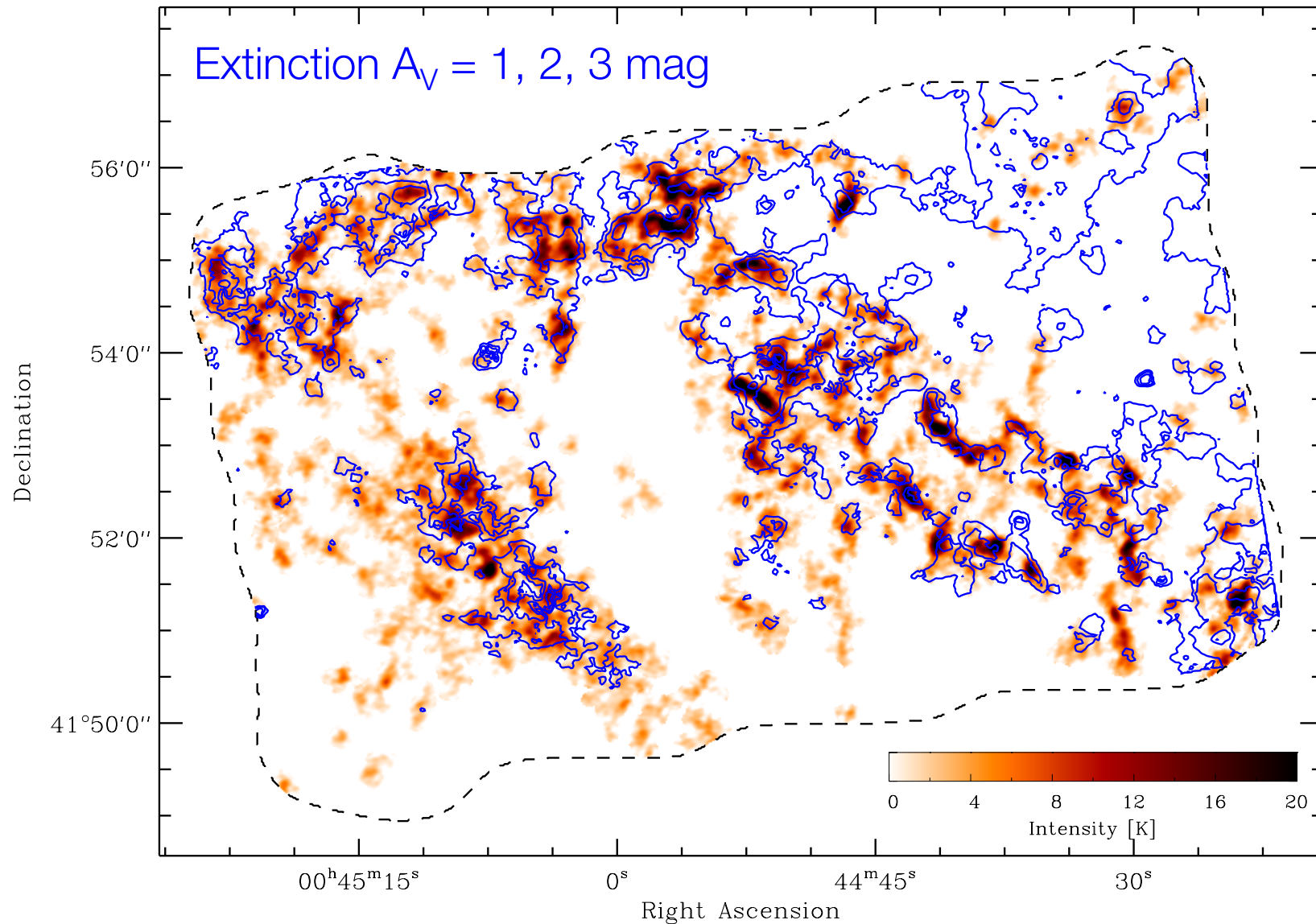
PHAT Cluster Catalog

Grad: Lori Beerman
(U Washington)



PHAT Extinction Map

Julianne Dalcanton
(U Washington)



PHAT Extinction Map

Julianne Dalcanton
(U Washington)

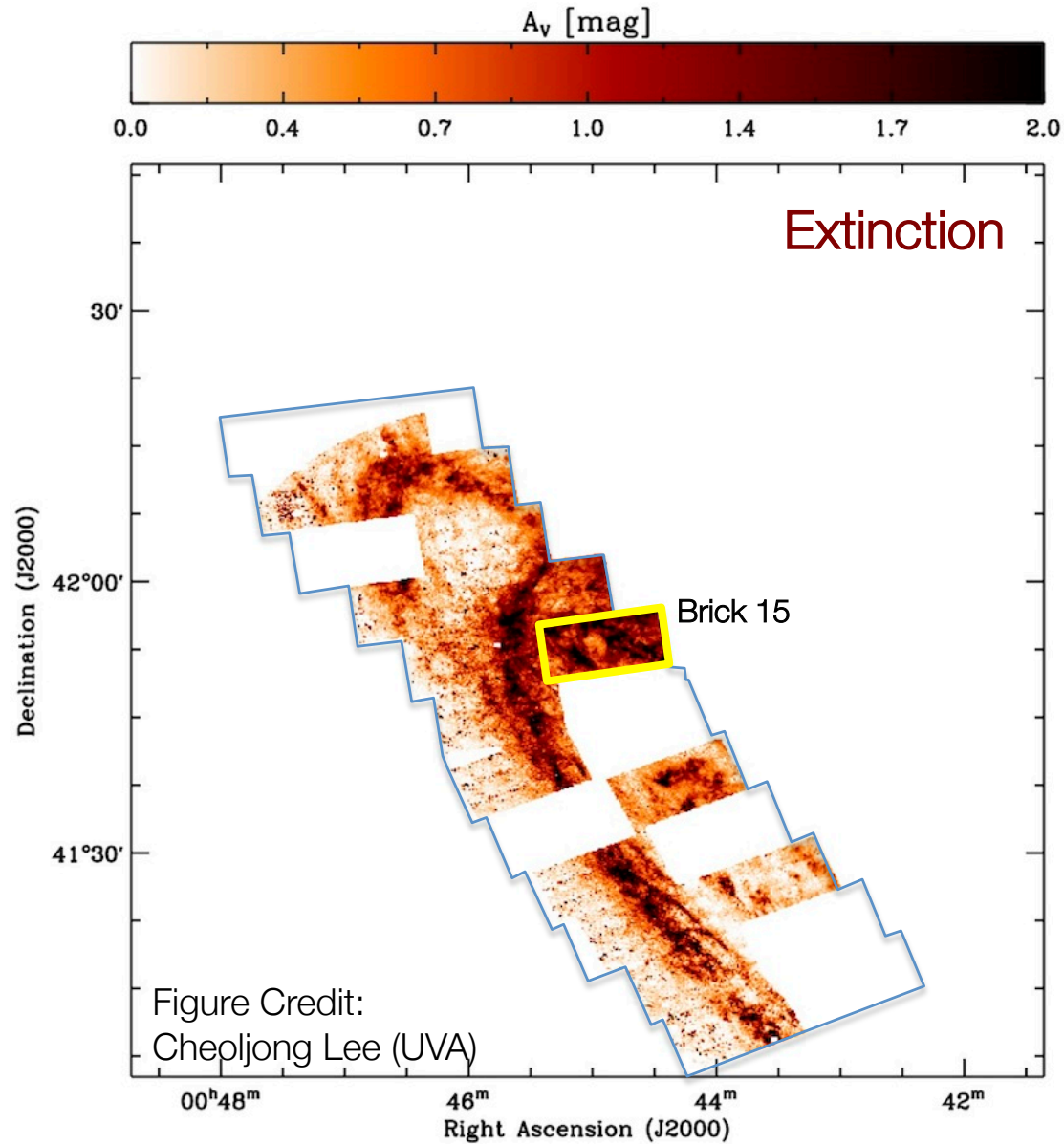
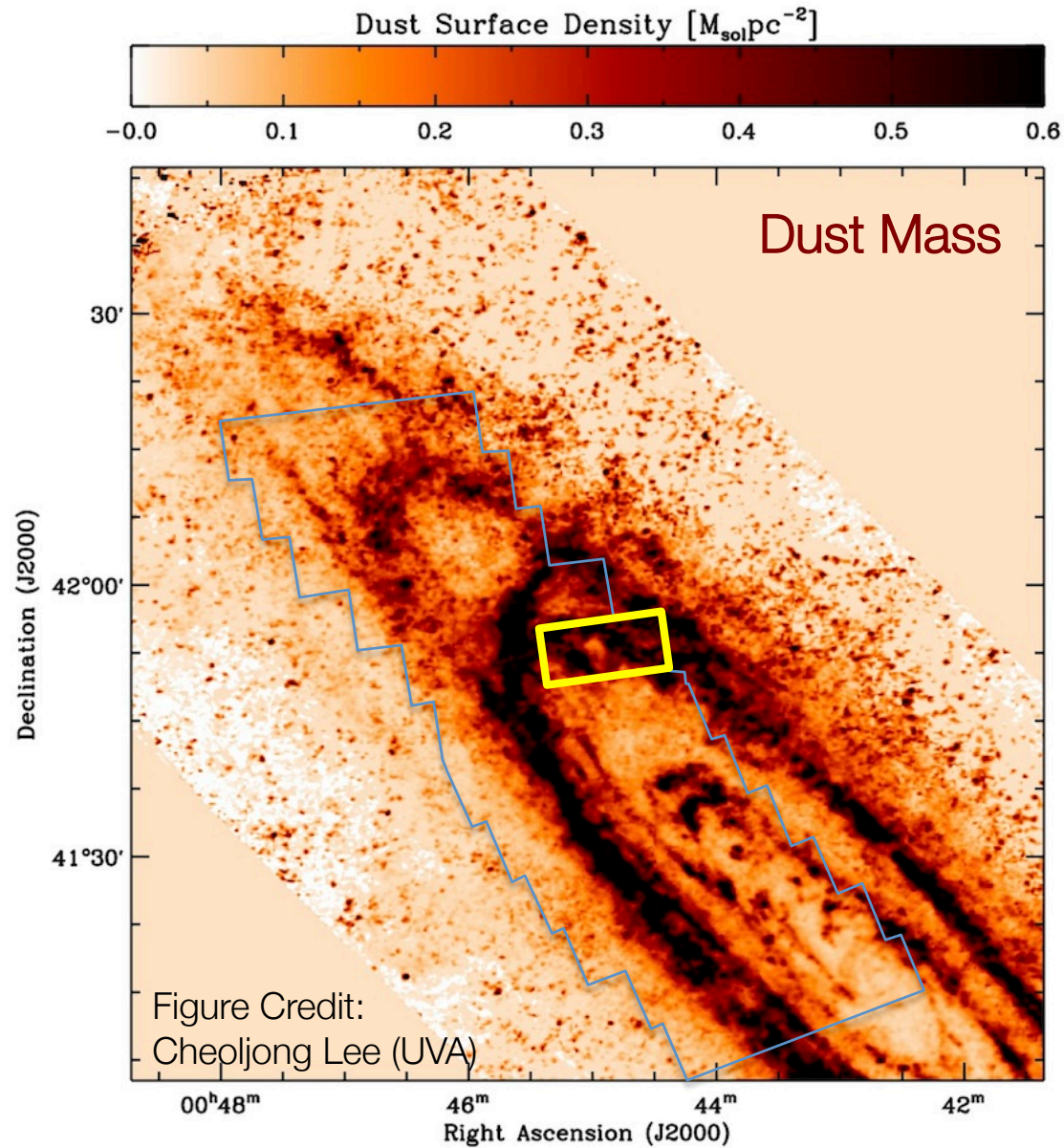


Figure Credit:
Cheoljong Lee (UVA)

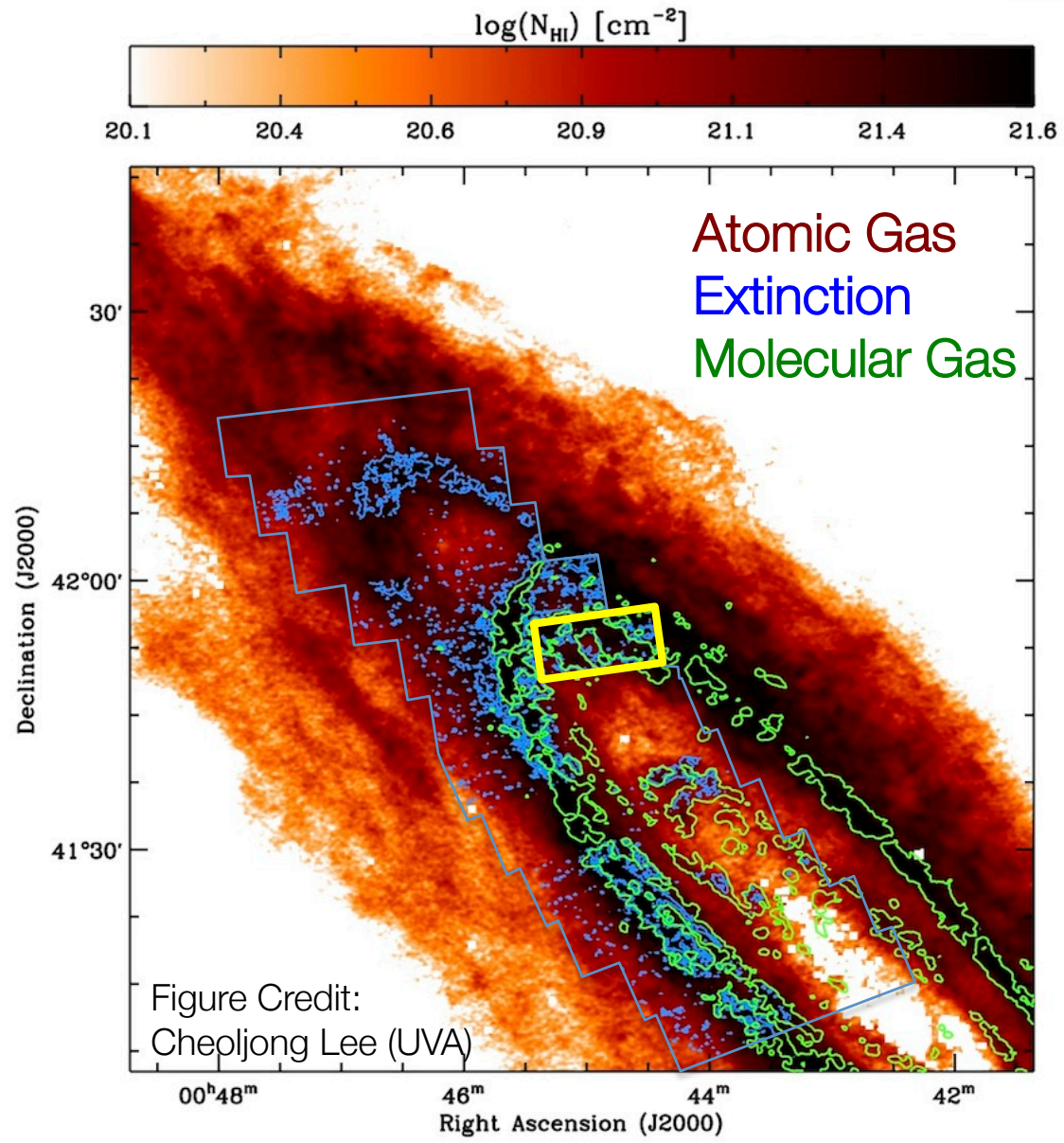
PHAT Extinction Map

Bruce Draine
(Princeton)



PHAT Extinction Map

Grad: Cheoljong Lee
(U Virginia)



CARMA Survey of Andromeda

Final CARMA Survey

pointings: 1500

area: $0.1 \text{ deg}^2 \sim 15 \text{ kpc}^2$

beam: $20 \text{ pc} \times 1 \text{ km/s}$

clouds: 500-1000

completion: end 2013

