



The Nature of Composite Galaxies

[Separating power sources with IFS observations]

Hampton et al. in prep

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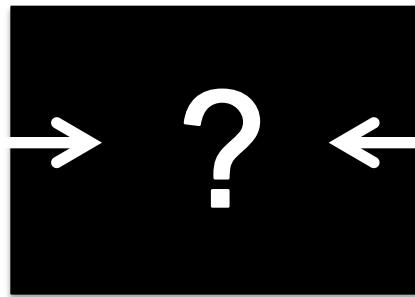
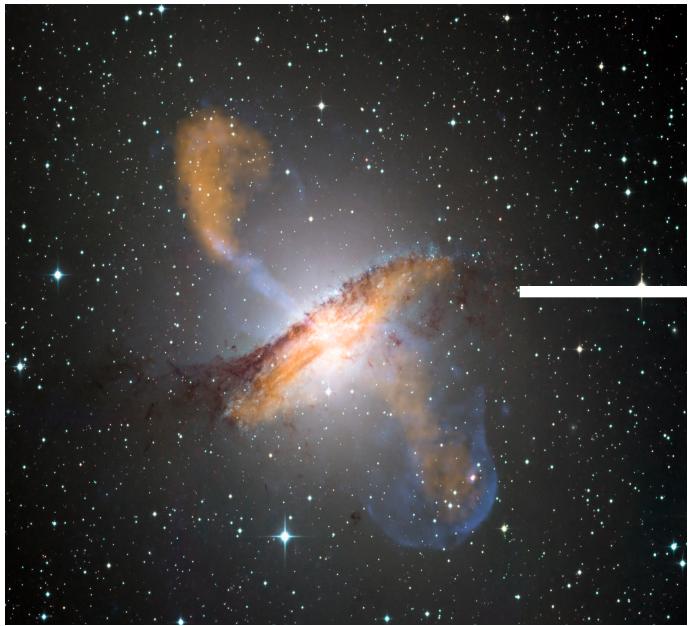


What is a Composite Galaxy?

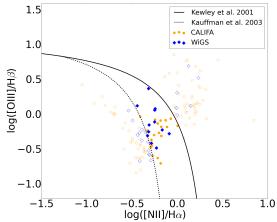
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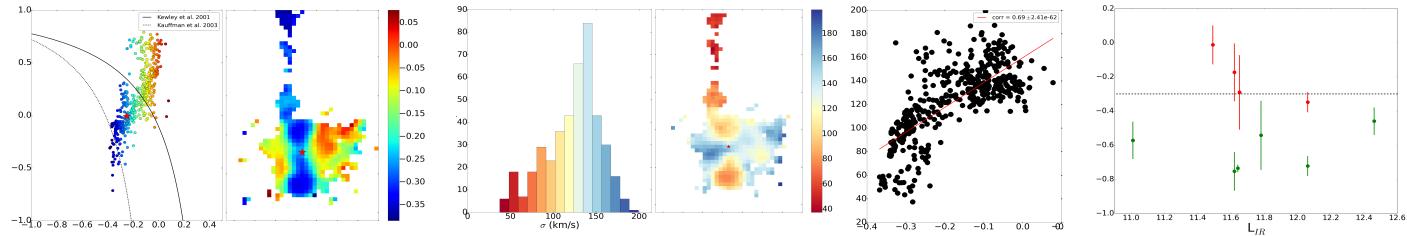
What is a Composite Galaxy?



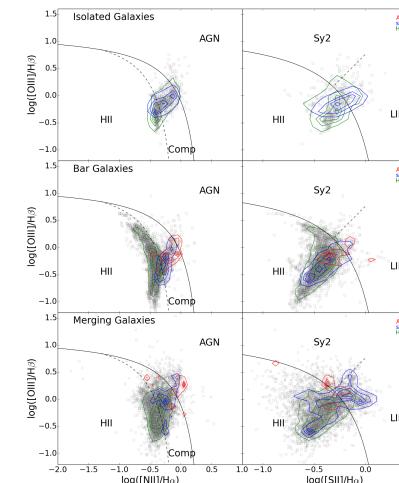
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1. Defining Composite Galaxies and where'd we get them



2. Separating out power sources



3. Our Results



Our Galaxy Sample

WiGS – Rich et al. 2012

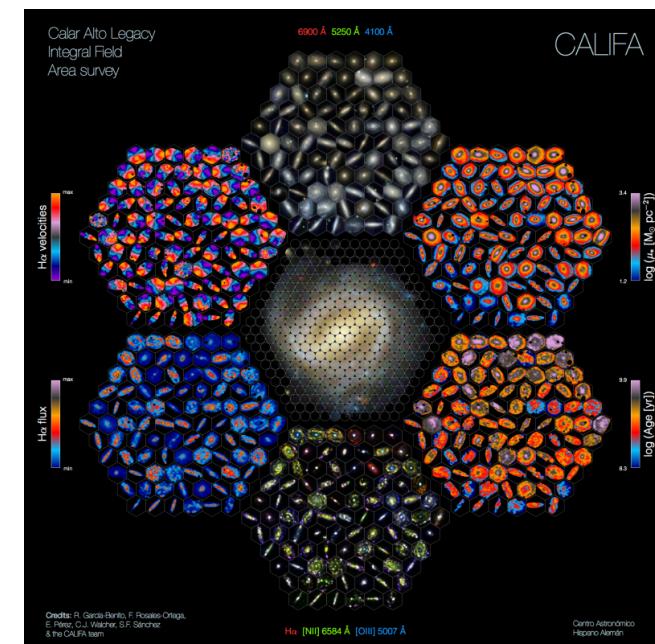
$z < 0.05$

27 Galaxies

CALIFA – Sanchez et al. 2012

$0.03 < z < 0.05$

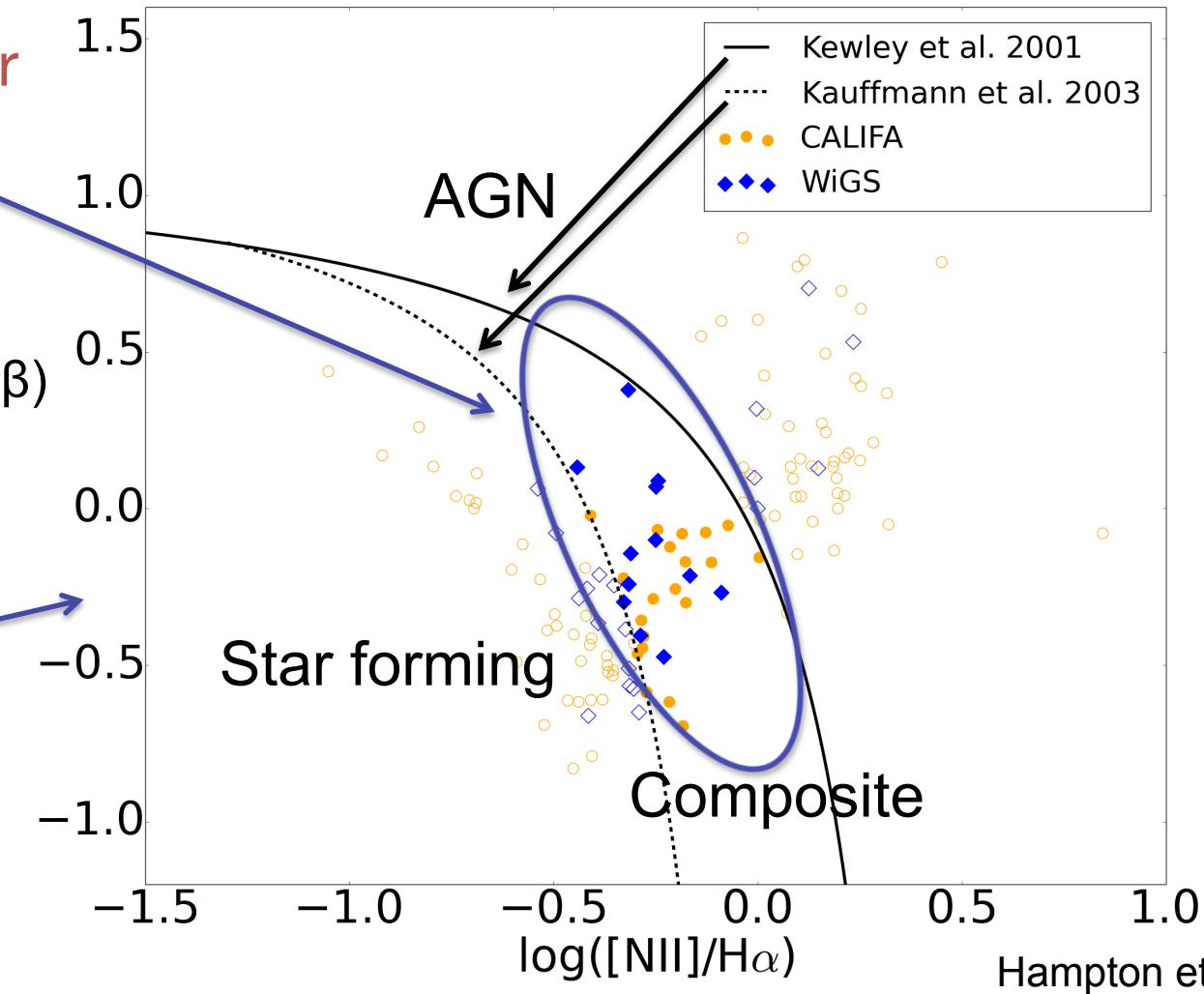
100 Galaxies



Our Galaxy Sample

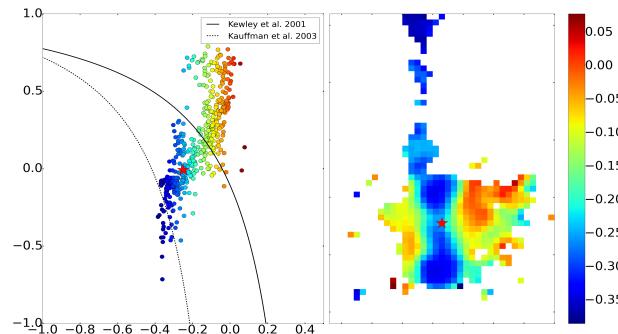
These are our
Composite
Galaxies

NII BPT
Diagram

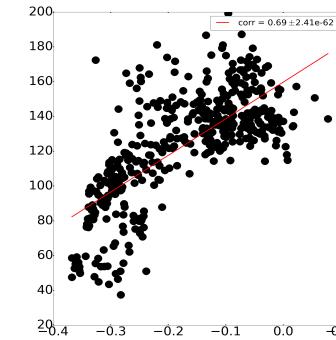




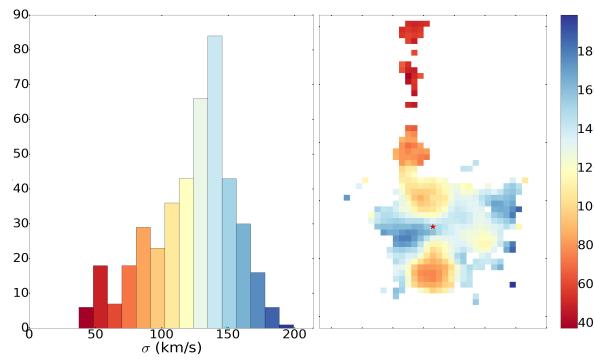
Separating Power Sources



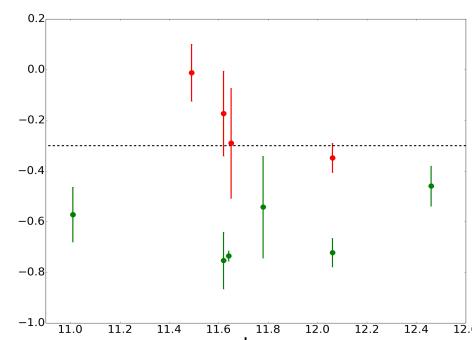
1. BPT Diagnostic Diagrams



3. Velocity Dispersions vs line ratios



2. Velocity Dispersions

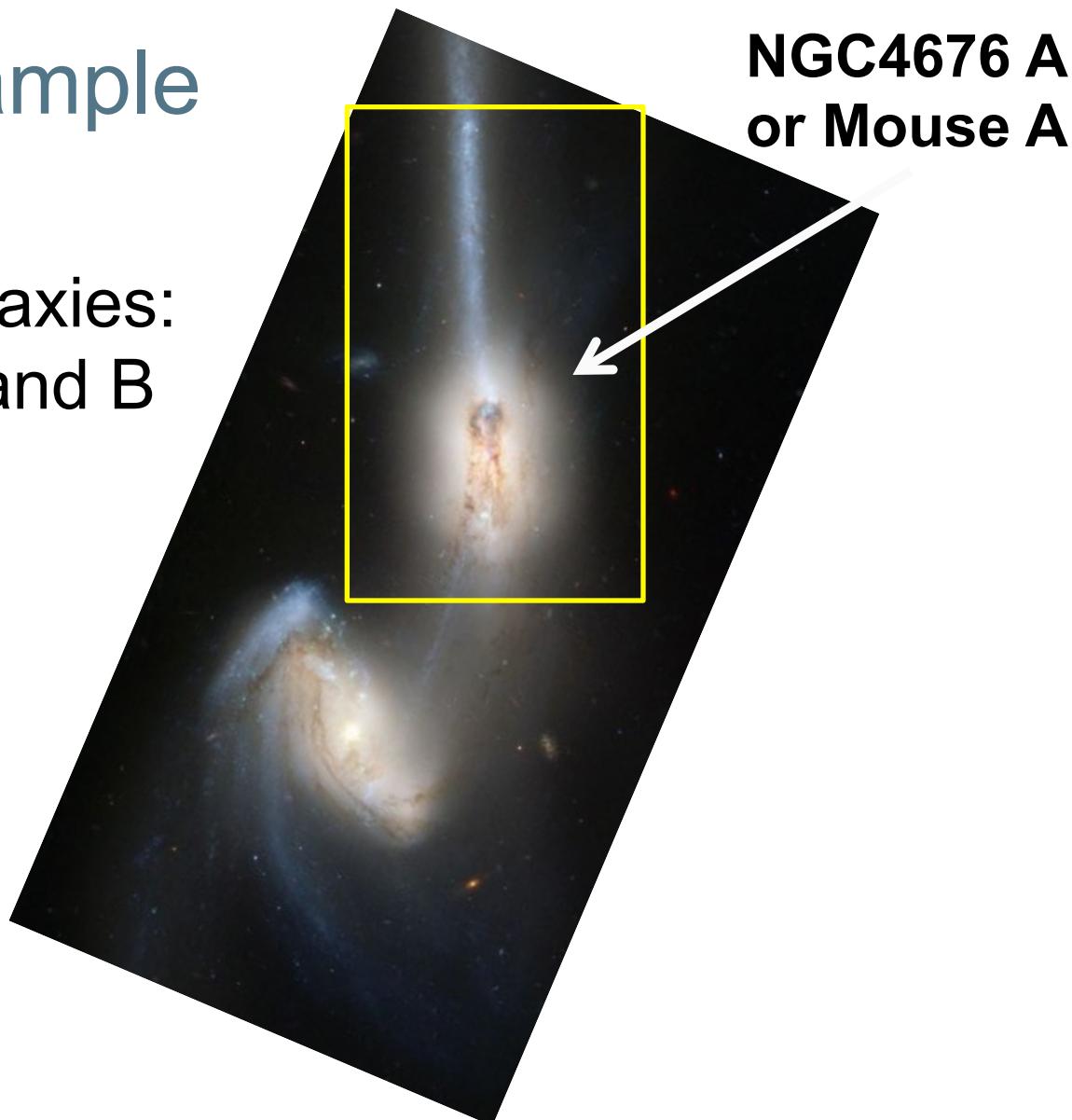


4. X-ray AGNs

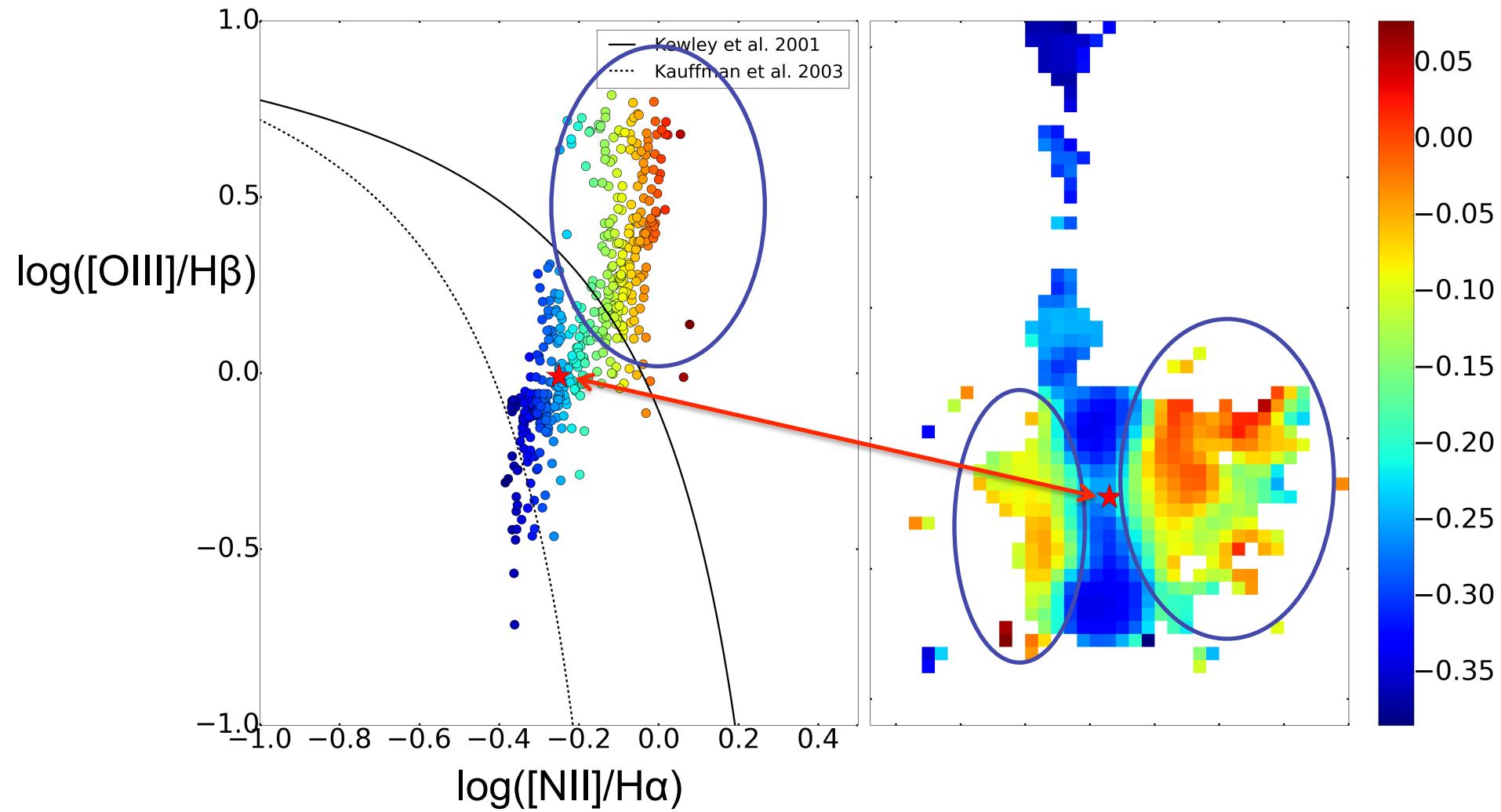


An Example

The Mice Galaxies:
NGC4676A and B

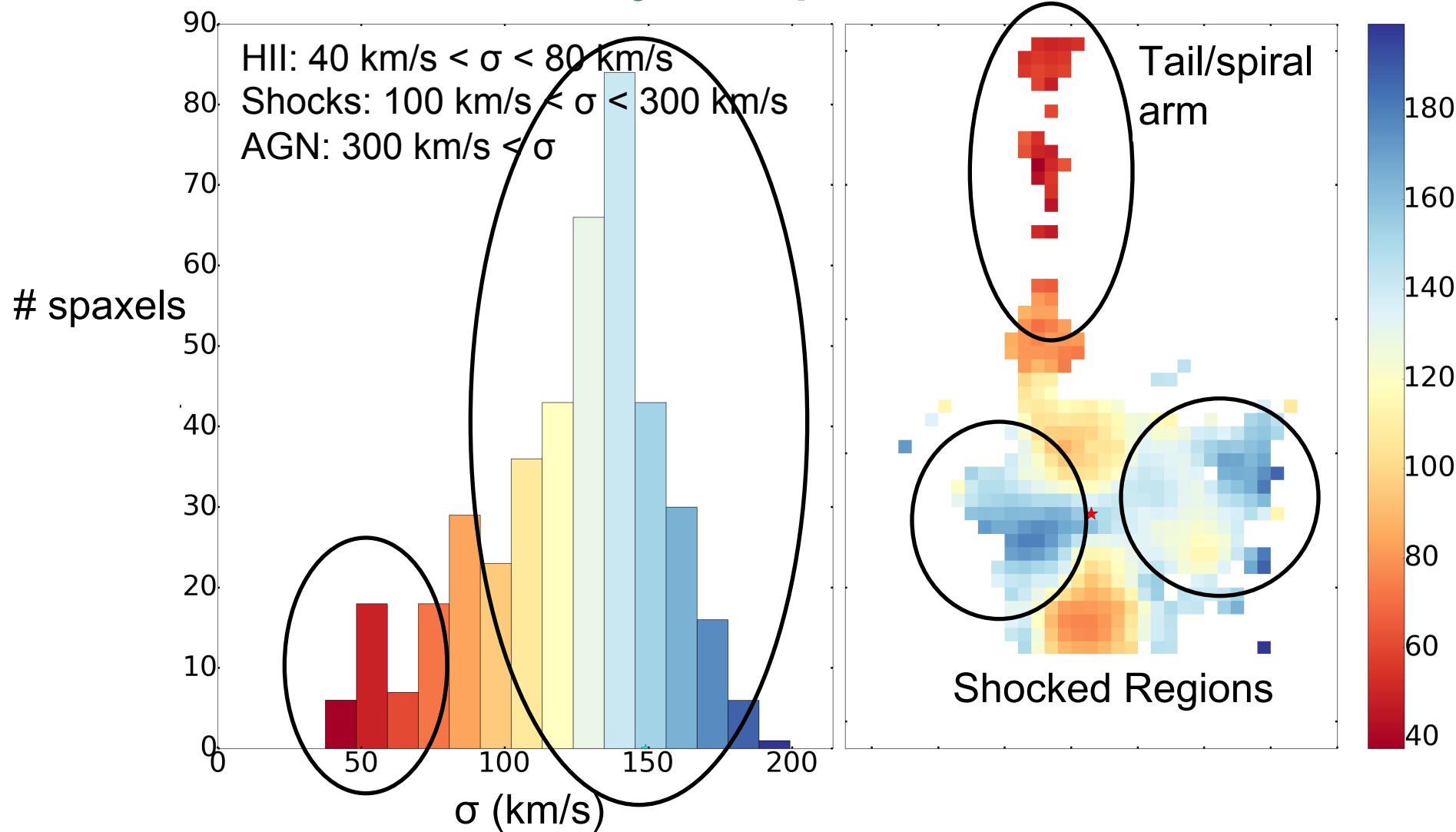


Line Ratios/BPT Diagrams



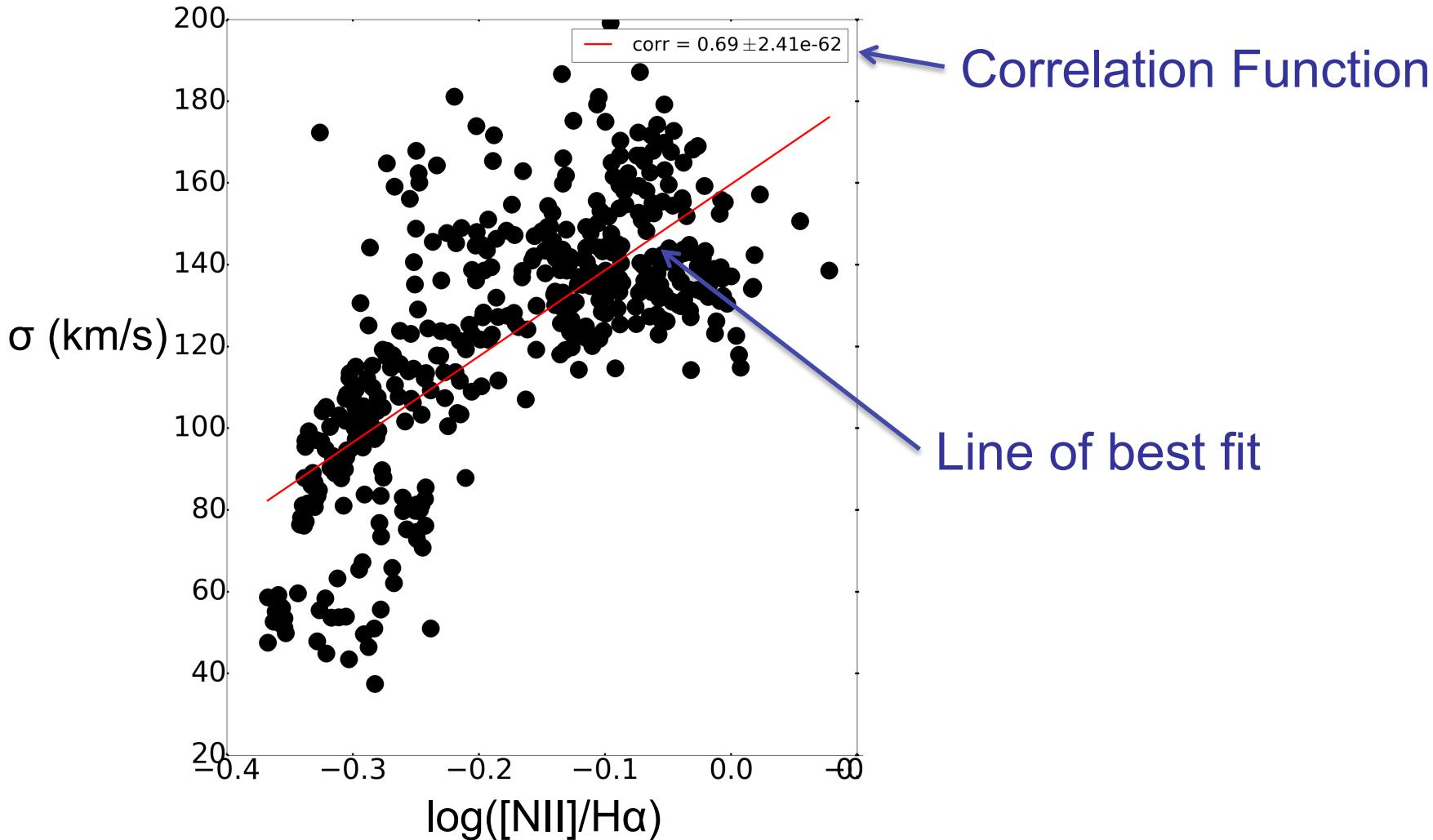


Velocity Dispersions



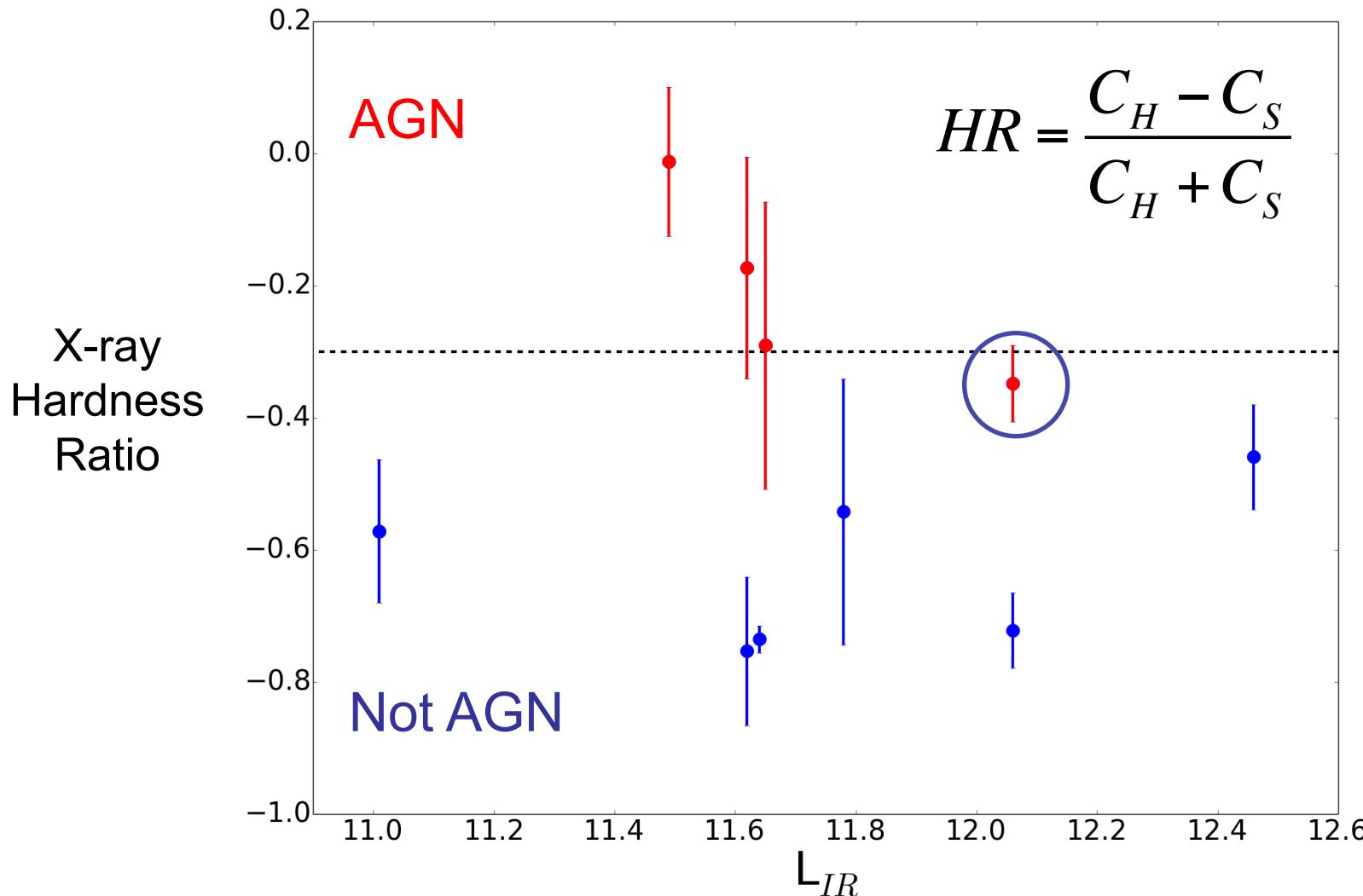


Line Ratios vs Velocity Dispersions



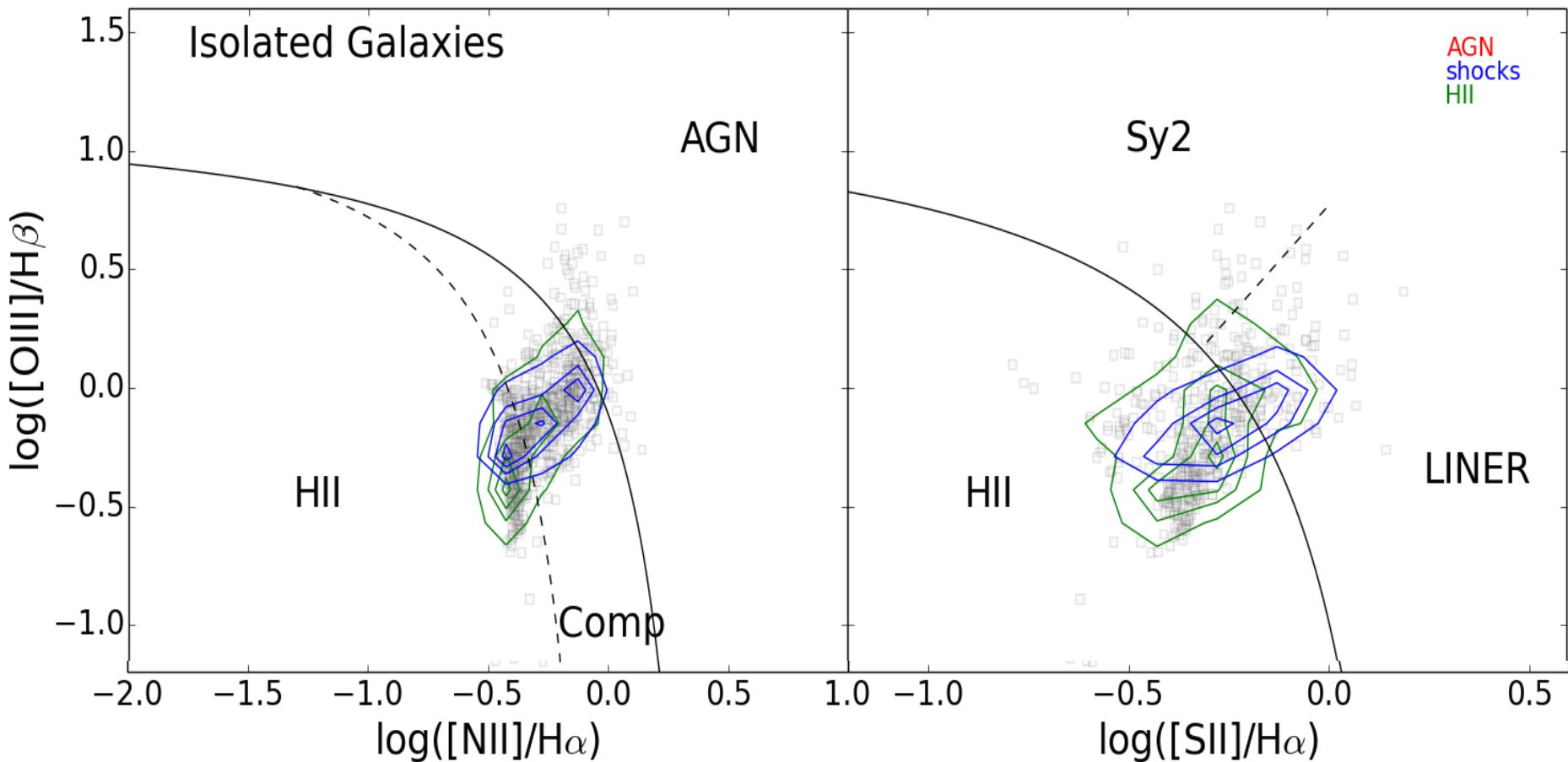


X-ray identification of AGN



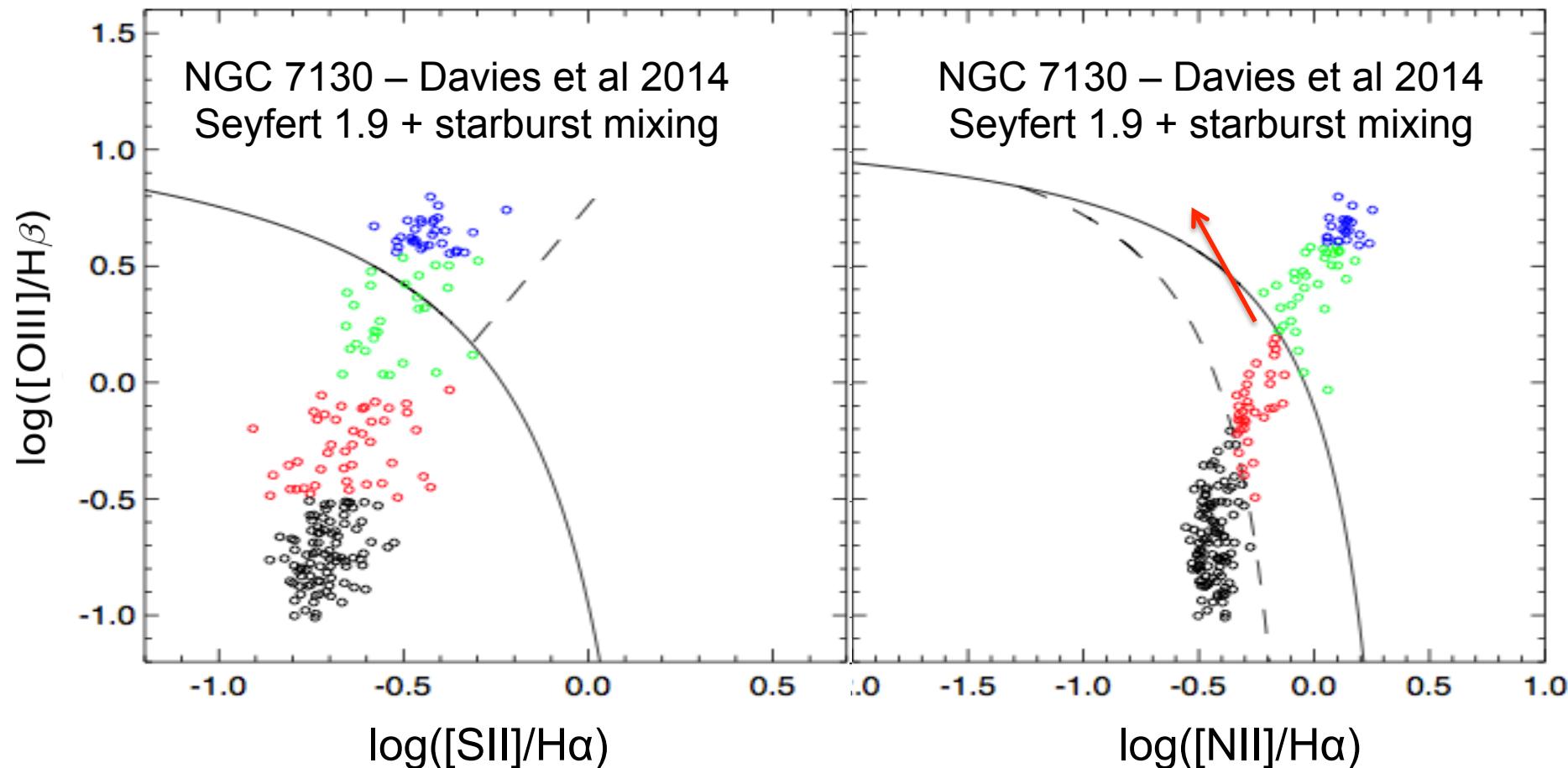


Results



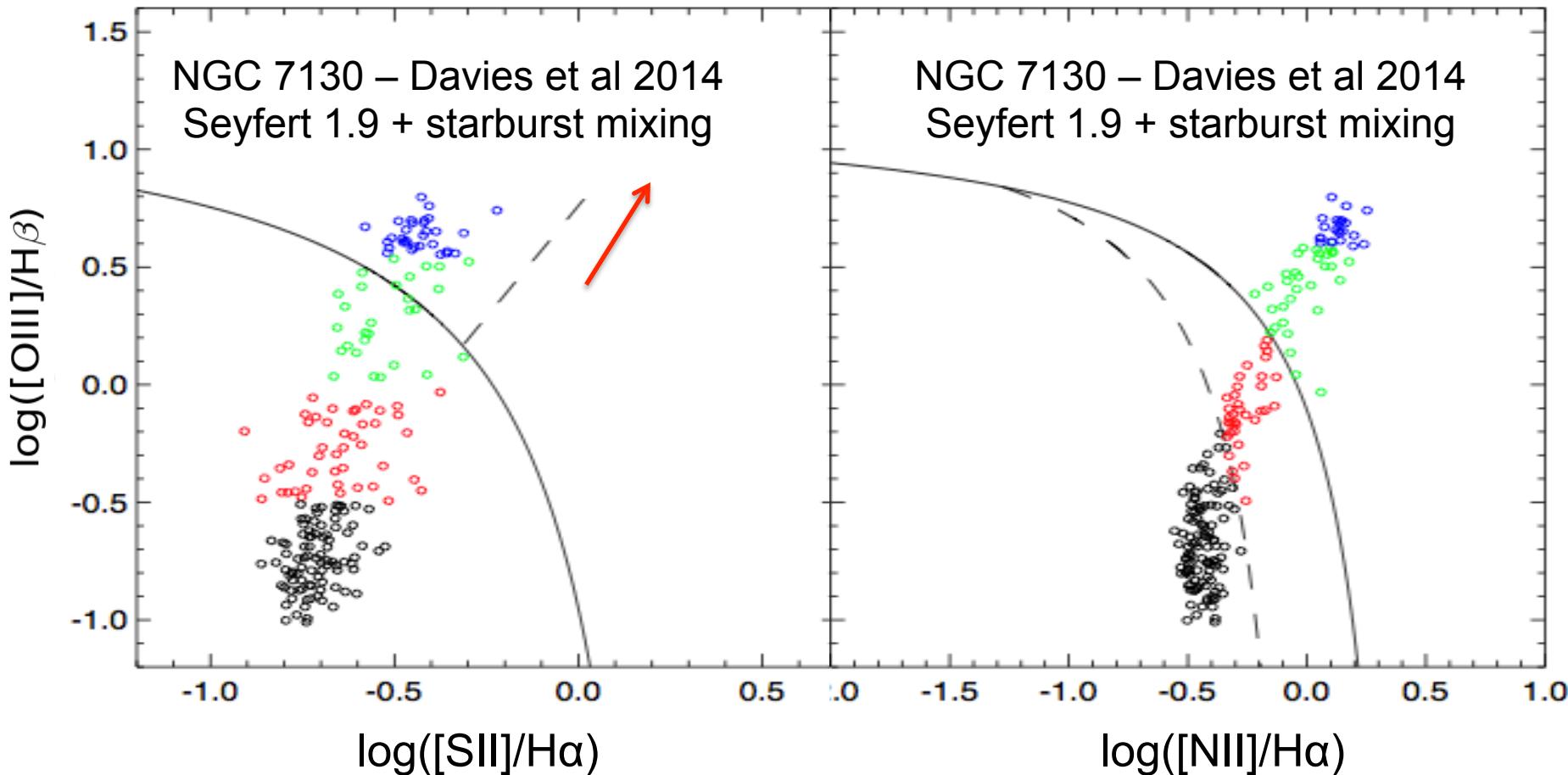


Results





Results





Where is this going/take home messages?

Optically selected composite galaxies are combinations of Star formation and/or Shocks and/or LLAGNs/LINERS

-> Not all composites have AGNs (that we can tell from optical or X-ray)

It is possible to separate star formation from shocks from AGN power sources using optical IFS

Next step to look at the fractional relations of each power source in SAMI galaxies

Composites in the



coming soon!



These are Composite Galaxies

