Star Formation & Dust Heating in the FIR Compact Sources of M83

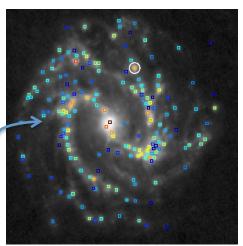
Kelly Foyle & Giovanni Natale

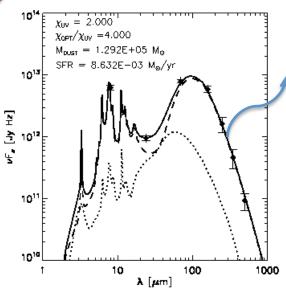
Detect compact sources in far-IR (Herschel)

3

Fit SED of IR dust emission for each source

Sizes of R~150 pc





Combination of PDR/HII region and diffuse dust emission

2 Measure fluxes in $H\alpha$, MIR & FIR

8 μ m	24 μ m	70 μ m	160 μ m
8		0	<u>©</u>
14		45.8	1
250 μ m	$350~\mu$ m	500 μ m	Нα
©	<u></u>	\odot	®

What type of radiation field is heating the compact sources?

How does the star formation rate and efficiency vary among sources?