K-GMT 프로그램을 이용한 외부은하 연구

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(공동연구: 황호성, 손주비, 장인성, 양유진, 황나래, 박홍수, 김상철, 임성순, 신민수 등)

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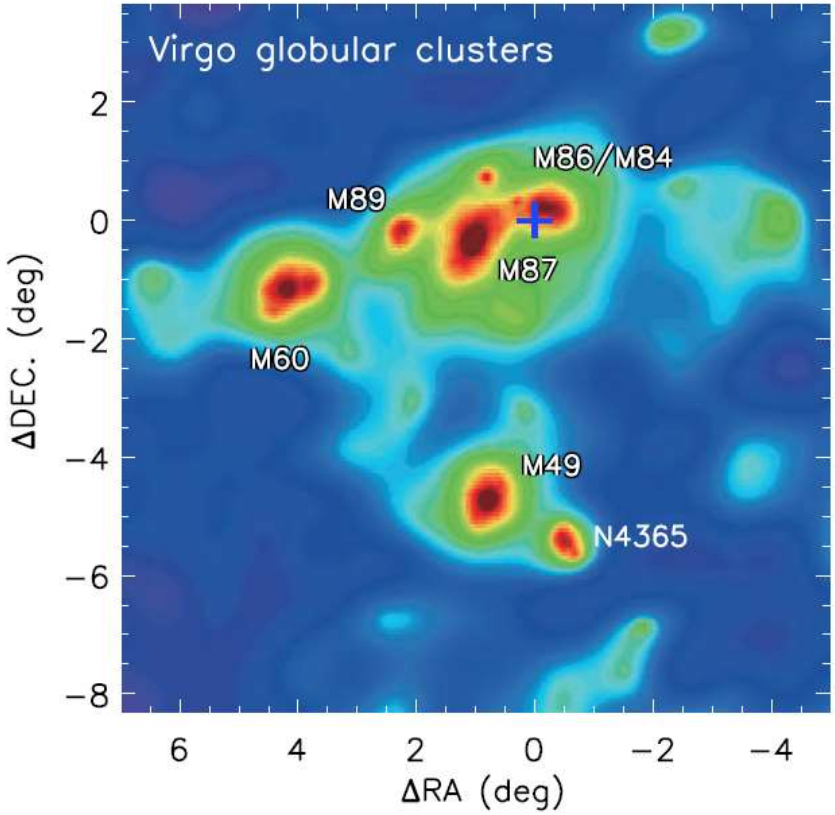
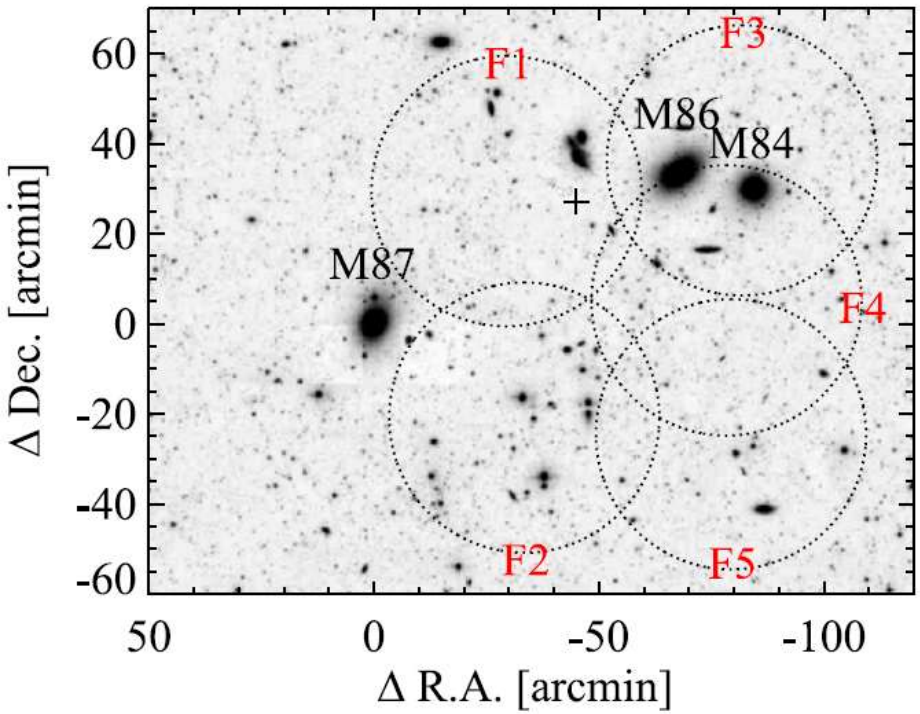
K-GMT Science Programs with OBSCOS

Target	Instrument		Allocated Time	Semester	PI.
Virgo core	MMT/Hectospec	…	1 night (10 hours)	2014A	M. G. Lee
M85	CFHT/MegaCam	ugi	~ 3 hours	2014A	M. G. Lee
	Gemini-N/GMOS	MOS	4 hours	2015A	M. G. Lee
	MMT/Hectospec	…	1 night (6.5 hours)	2016A	Y. Ko
M81 group	MMT/Hectospec	…	4 hours	2014A	M. G. Lee
M104	CFHT/MegaCam	ugi	~ 4 hours	2015A	M. G. Lee
	MMT/Hectospec	…	1 night	2017A	J. Kang
M31	MMT/Hectospec	…	2 hours	2015B	M. G. Lee
	MMT/Hectospec	…	4 hours	2016B	M. G. Lee
E+A galaxies	Gemini-N/GMOS	IFU	14.1 hours	2015B	G.-H. Lee
	Gemini-S/GMOS	IFU	9.2 hours	2017A	G.-H. Lee
	Gemini-N/GMOS	longslit	5 hours	2016A	G.-H. Lee
Lyα blobs	MMT/SPOL	…	1 night (~ 6 hours)	2016A	E. Kim
	MMT/SPOL	…	1 night (~ 8 hours)	2016B	E. Kim

Intracluster Globular Clusters in Virgo

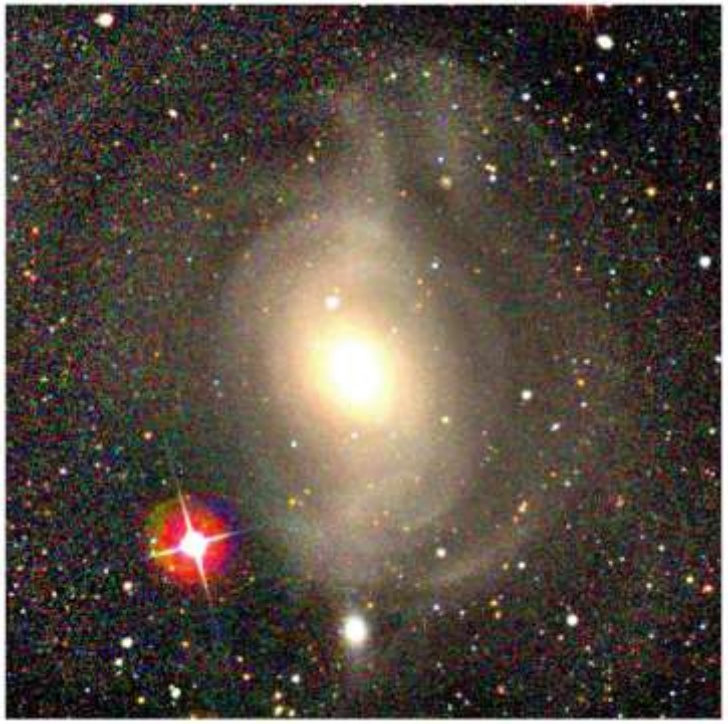
- MMT/Hectospec spectroscopy
  - To identify genuine IGCs and study its nature and origin

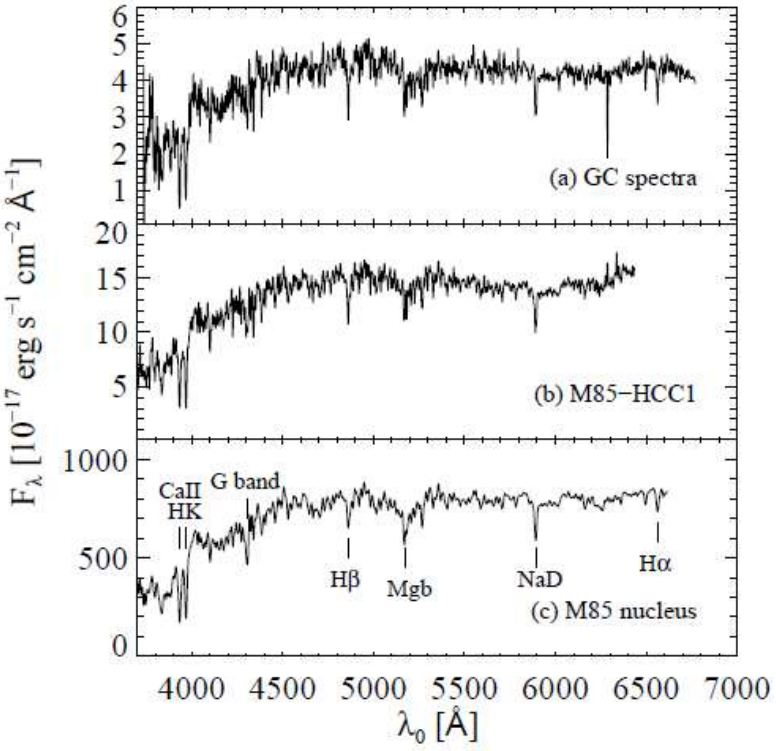




The Globular Cluster System in M85

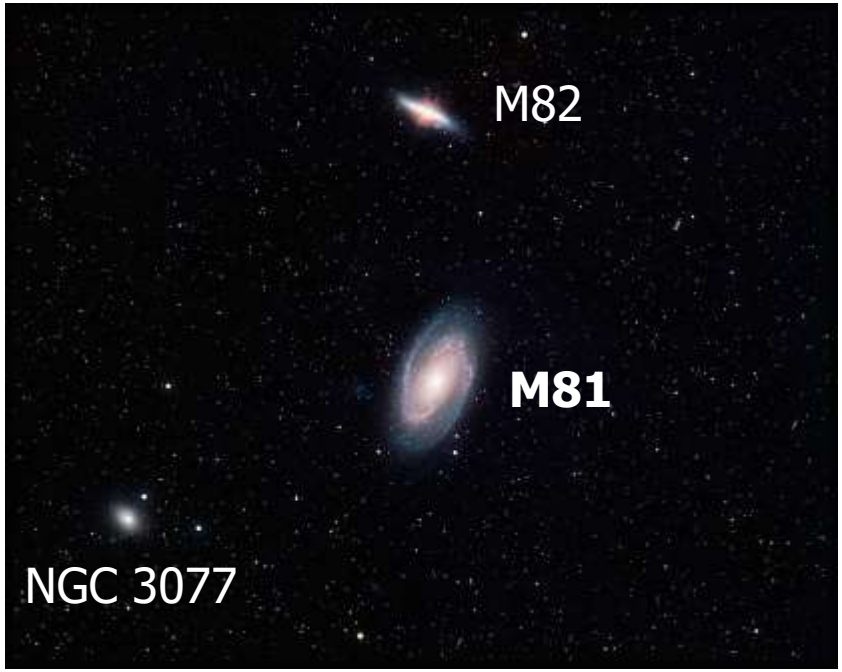
- CFHT/MegaCam imaging
- Gemini/GMOS (MOS), MMT/Hectospec spectroscopy
  - To trace the formation history of the merger remnant galaxy M85 based on its globular cluster system

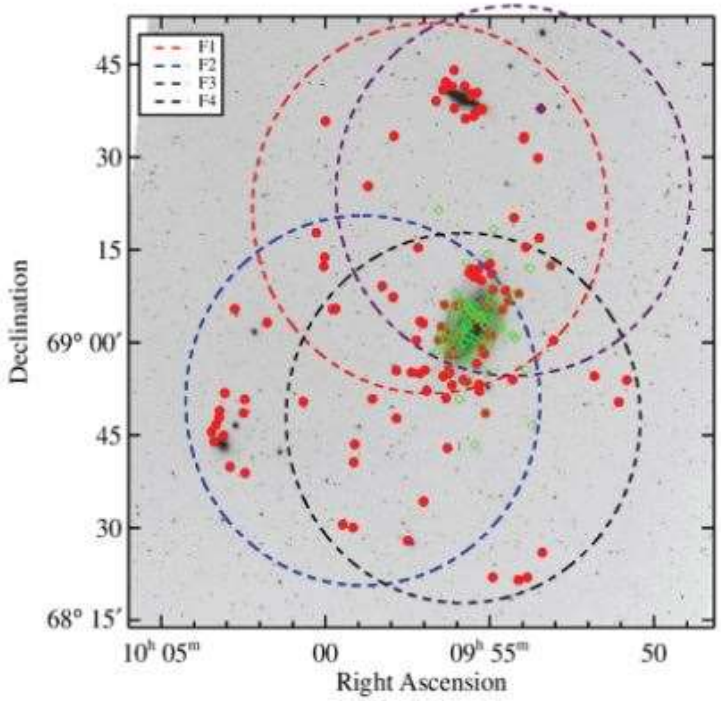




The Globular Cluster System in the M81 Group

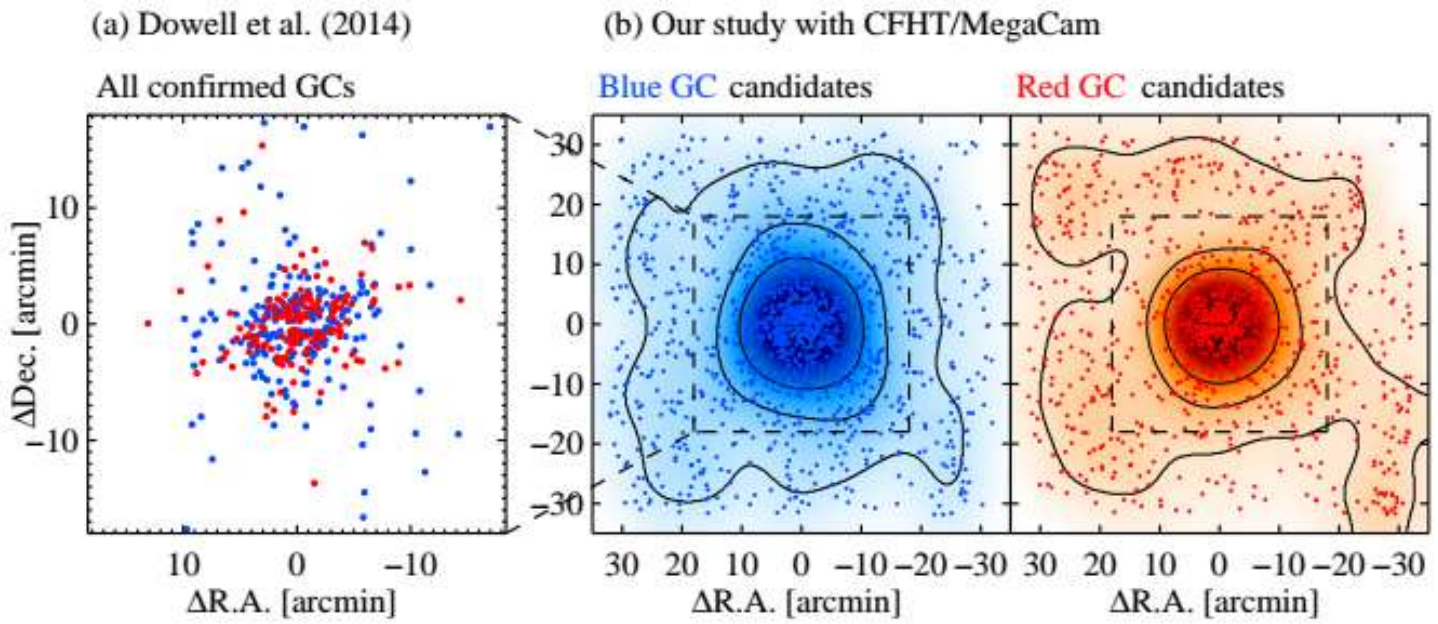
- MMT/Hectospec spectroscopy
  - To identify halo GCs in the M81 group from their radial velocity and estimate their age and metallicity





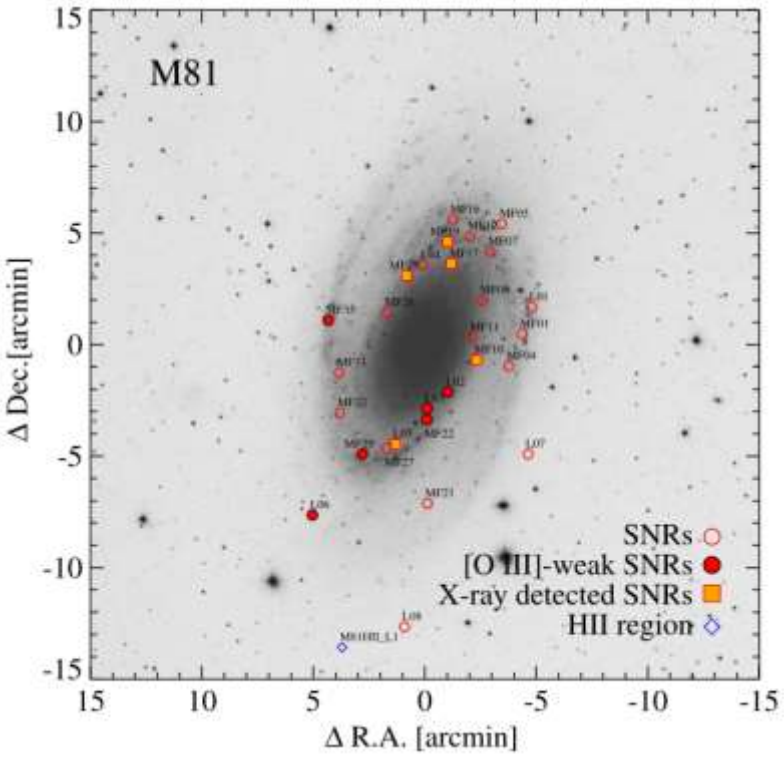
The Globular Cluster System in M104

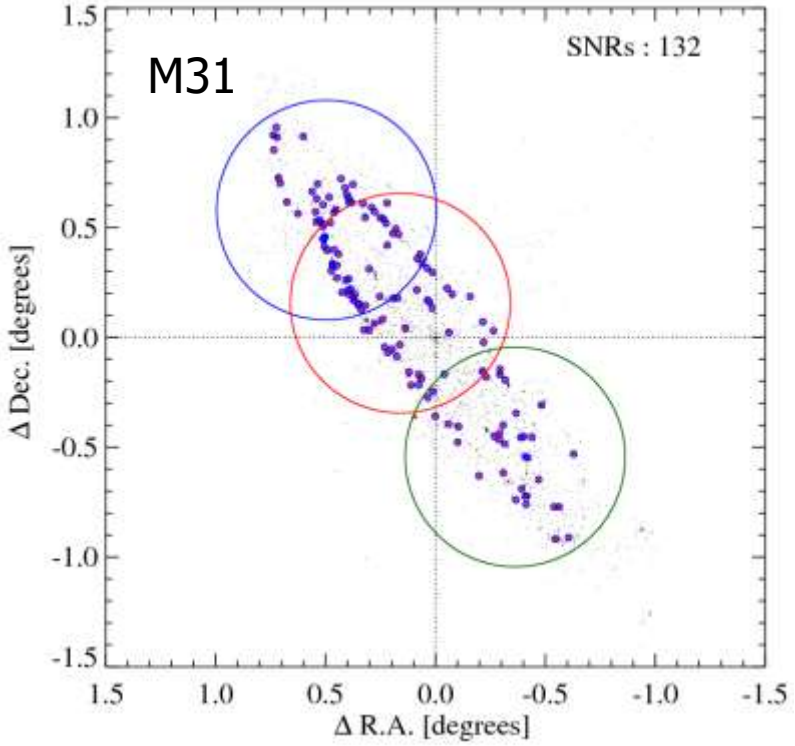
- CFHT/MegaCam photometry
  - To obtain deep and wide images of M104 and study the globular clusters in the outer halo
- MMT/Hectospec spectroscopy
  - To obtain spectra of GC candidates in the outer halo of M104 and study their kinematic properties



Supernova Remnants in M81 and M31

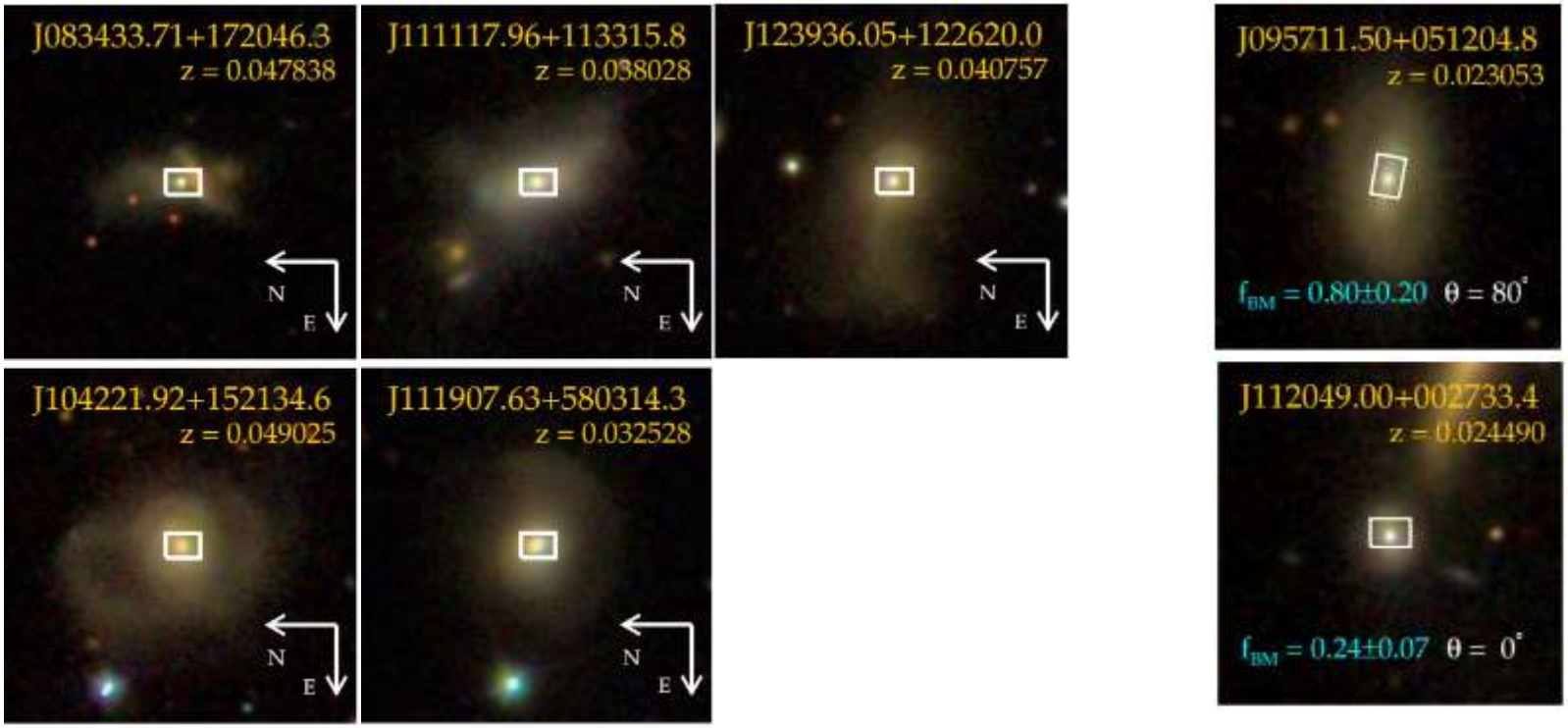
- MMT/Hectospec spectroscopy
  - A spectroscopic survey for SNRs in M81 and M31
  - To investigate the abundances in the disk of M81 and M31





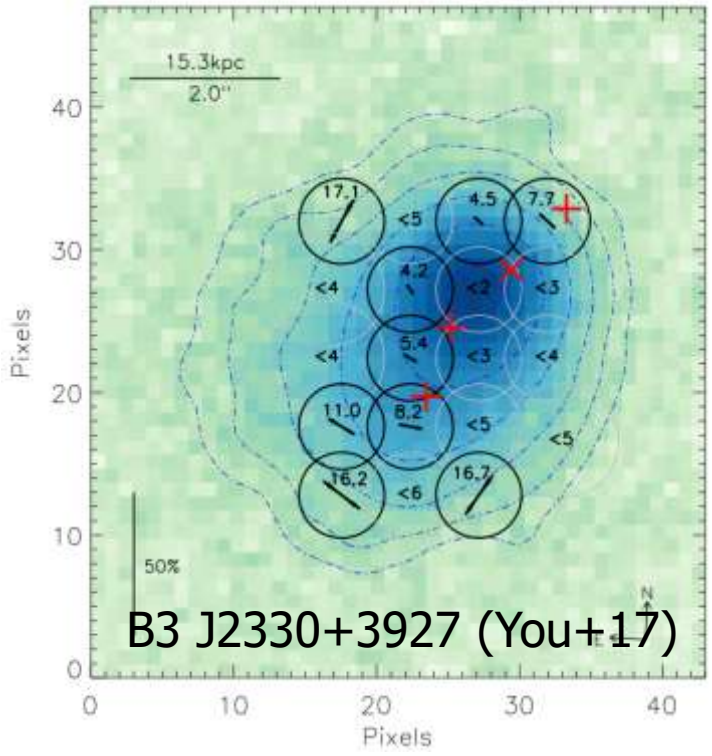
Post-starburst E+A Galaxies

- Gemini/GMOS (IFU/longslit) spectroscopy
  - To investigate stellar population gradients in post-starburst galaxies
  - To verify the relation between stellar population gradient and starburst strength of post-starburst galaxies

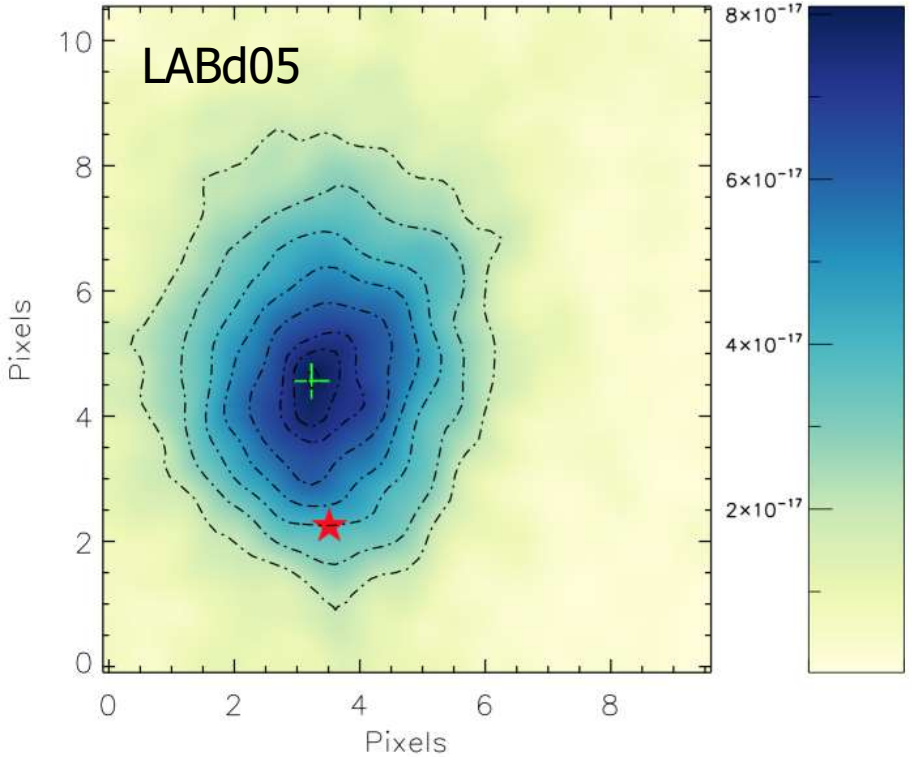


Lyman α blobs

- MMT/SPOL polarimetry
  - To reveal the nature of Lyα nebulae:
    Photoionization vs. Resonant scattering



B3 J2330+3927 (You+17)



Papers & Presentations

- 2 Papers
  - Lee, M. G. et al. 2015, ApJ, 804, 63
    (Optical Spectroscopy of Supernova Remnants in M81 and M82)
  - Ko, Y. et al. 2017, ApJ, 835, 212
    (To the Edge of M87 and Beyond: Spectroscopy of Intracluster Globular Clusters and Ultracompact Dwarfs in the Virgo Cluster)

- Presentations
  - 11 Oral presentations
  - 5 Poster presentations