

SDSS-IV Collaboration Meeting Summary

卢家风

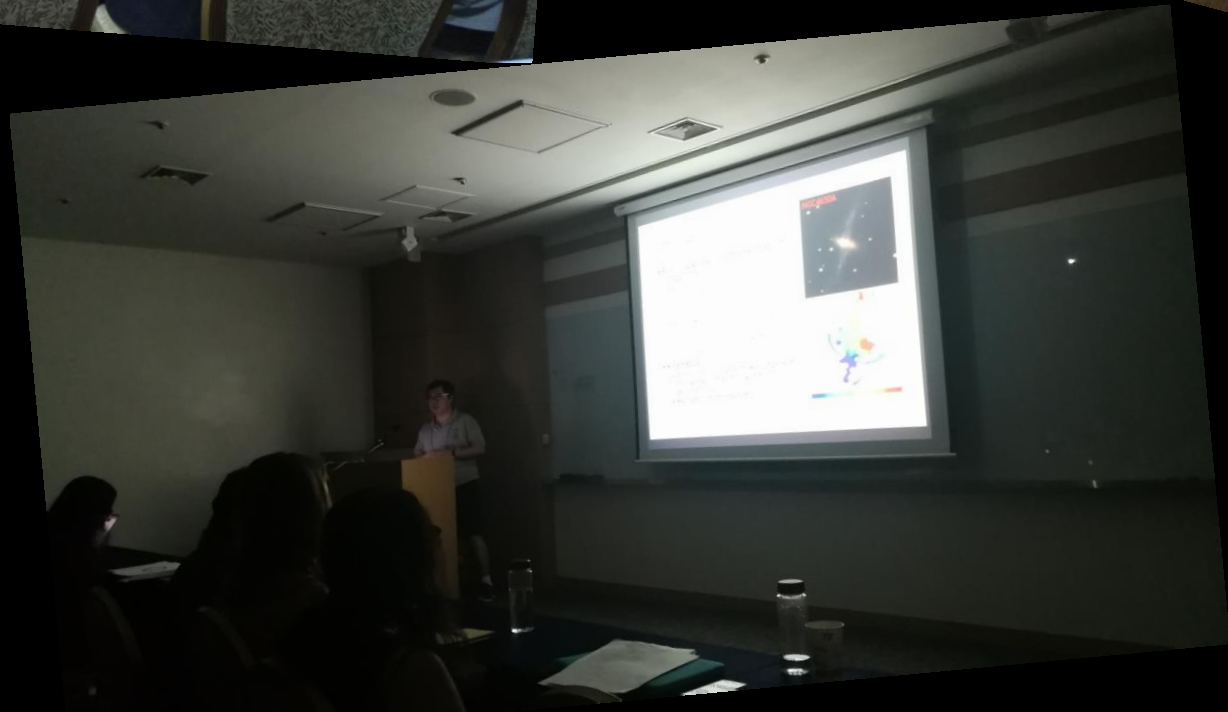
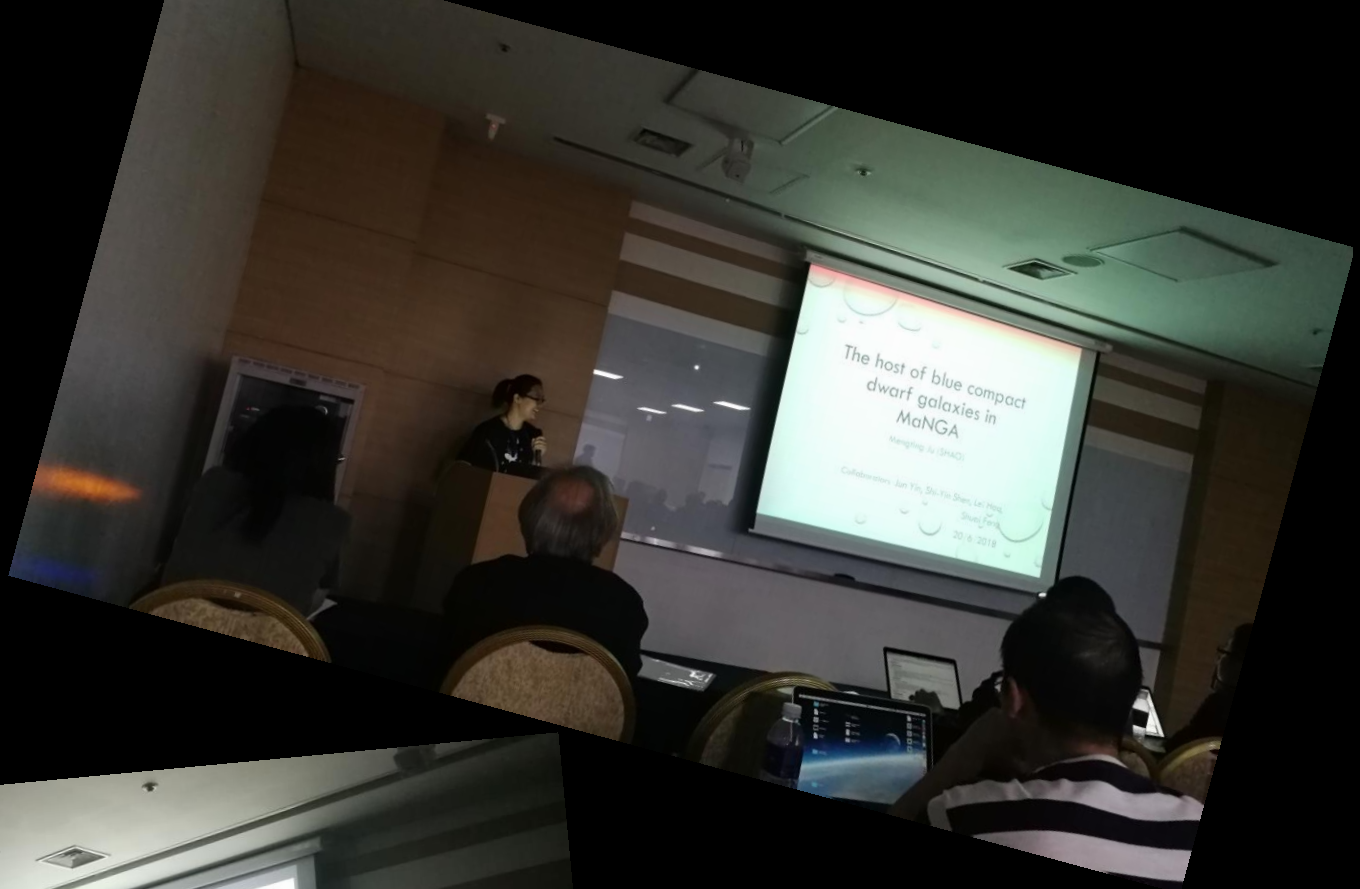
<https://trac.sdss.org/wiki/Meetings/2018Collab>

- 与会人数：120人
- 中国：24人
- 上海台：8人

- 报告数量：19/80
- 短报告：3/11
- 9个来自上海台

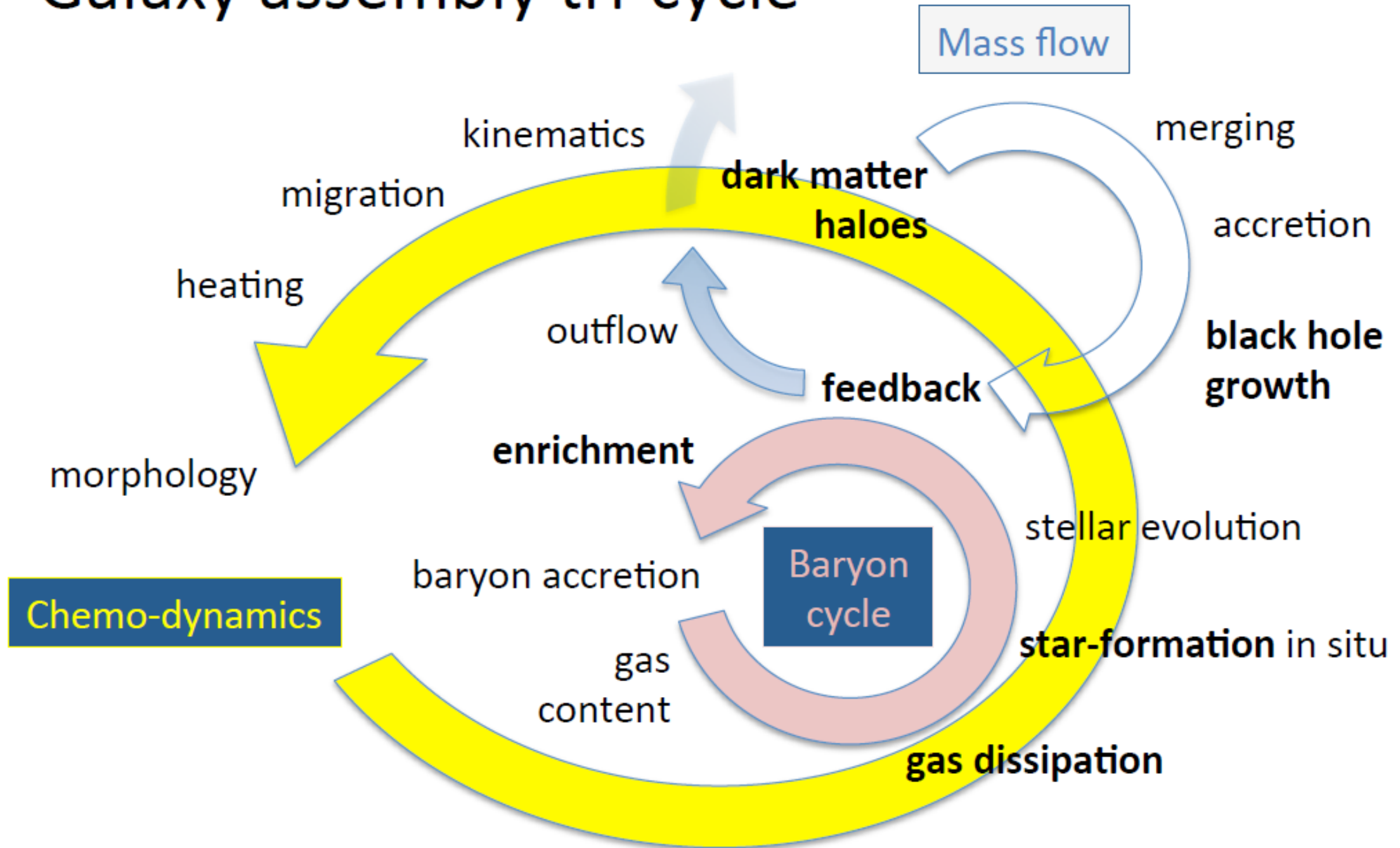






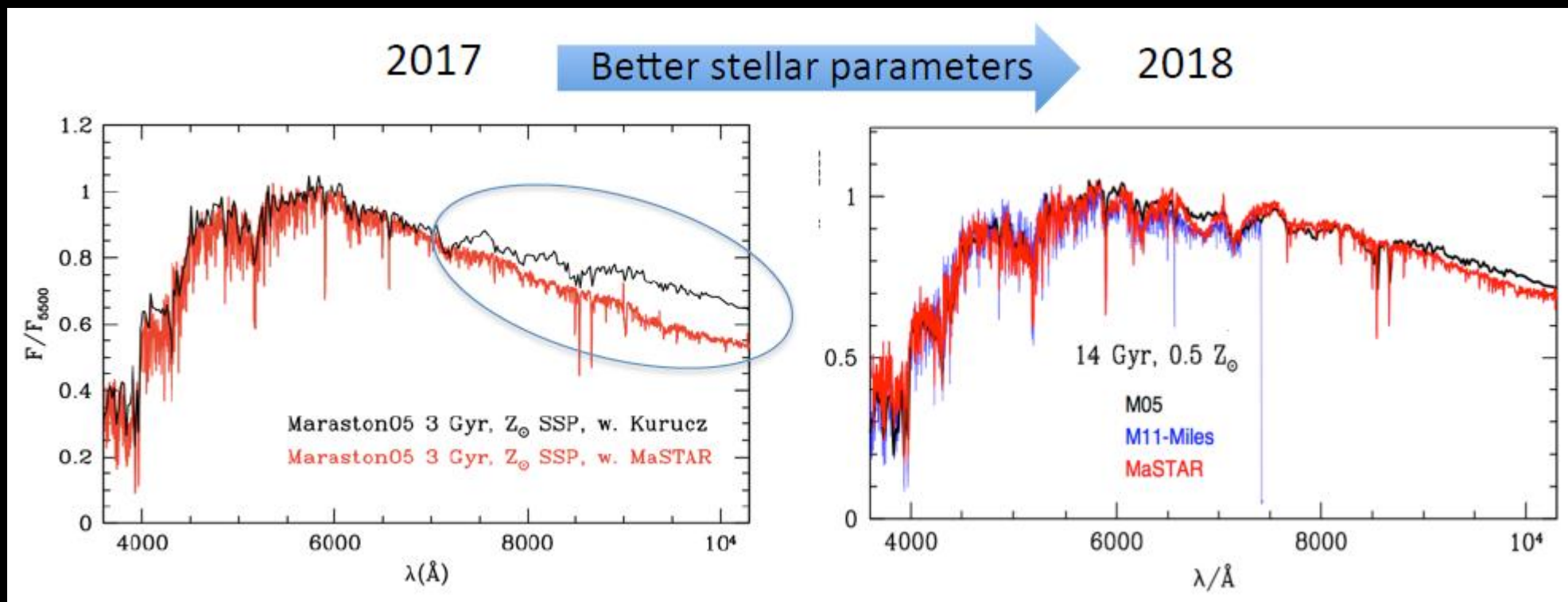
Times	Mon 18th June	Tue 19th June	Wed 20th June	Thur 21st June	Fri 22nd June		
9:00-10:30	Opening Plenary Welcome - Status of SDSS-IV - COINS Intro - The Next SDSS - Gravitational Waves in Korea (details) Convention Hall A	Plenary: Secular Galaxy Evolution 101 - APOGEE Overview - APOGEE-2 South: Progress - Constraining the formation of the Milky Way disk with APOGEE, Gaia and the EAGLE simulations - COINS Demographics Survey Update (details) Convention Hall A	Plenary: Galaxy Environments 101 - Gas, dust and stars: a multiwavelength picture of galaxy evolution with MaNGA and ALMA - Collaboration 101: Friendly IV-midables - Lightning Talks (details) Convention Hall A				
10:30-11:00	COFFEE BREAK / Poster Session	COFFEE BREAK / Poster Session	COFFEE BREAK / Poster Session / Data Help Desk / Group Photo				
11:00-12:30	Plenary: Structure Formation 101 - eBOSS Overview - Clustering in the eBOSS ELG sample - Collaboration 101: How to Find your Data - Lightning Talks (details) Convention Hall A	Parallel sessions II *Barred Galaxies (details) Conference 1 *Clustering/Cosmology (details) Conference 3	Parallel Session IV *Gas in and Out of Galaxies (details) Conference 1 *Galaxy Dynamics (details) Conference 3 *eBOSS Team Meeting (I) (details) Conference 5			MaNGA Splinter Meeting (link)	MaNGA Splinter Meeting (link) Conference 1
12:30-2:00	COINS Code of Conduct Discussion (Conference 1) - LUNCH BREAK	EPO Discussion (Conference 1) - LUNCH BREAK	LUNCH BREAK			Conference 1	APOGEE Splinter Meeting (link) Conference 3
2:00-3:30	Plenary: Milky Way Formation 101 - MaNGA Overview - Marvin 101 - Chemical evolution of our Milky Way and external galaxies revealed by APOGEE and MaNGA - Lightning Talks (details) Convention Hall A	Plenary: Simulations 101 - SPIDERS Overview - - Modelling eBOSS Galaxies and Quasars: Techniques, Tools, Products - MaStar Overview - Collaboration 101: How to get involved in EPO (details) Convention Hall A	Parallel Session V *Galaxy Environments and Components (details) Conference 1 *Exoplanets and the Physics of Stars (details) Conference 3 *eBOSS Team Meeting (II) (details) Conference 5			Conference 3	Data Hack Morning (link) Conference 5
3:30-4:00	COFFEE BREAK / Poster Session	COFFEE BREAK / Poster Session / Data Help Desk	COFFEE BREAK / Poster Session				
4:00-5:30	Parallel Session I *The End of Starformation in Galaxies (details) Conference 1 *The Milky Way as a Galaxy (details) Conference 3	Parallel Session III *Stellar Parameter Determination (details) Conference 1 *Starforming Galaxies and Starformation Histories (details) Conference 3	Closing Plenary: Confirming Planets with APOGEE - Rethinking the Distance Scale in the Gaia Era - Astronomy for All, hosting the 31st IAU General Assembly in Busan - Collaboration Meeting Summary (details) Convention Hall A				
Evening	7pm Early Career Scientist (ECS) Dinner 7pm CoCo Dinner	7pm MaNGA Dinner	⇒ Conference Dinner , Diamond Hall, The Plaza Seoul (from 18:30)				

- Galaxy assembly tri-cycle



恒星参数测定

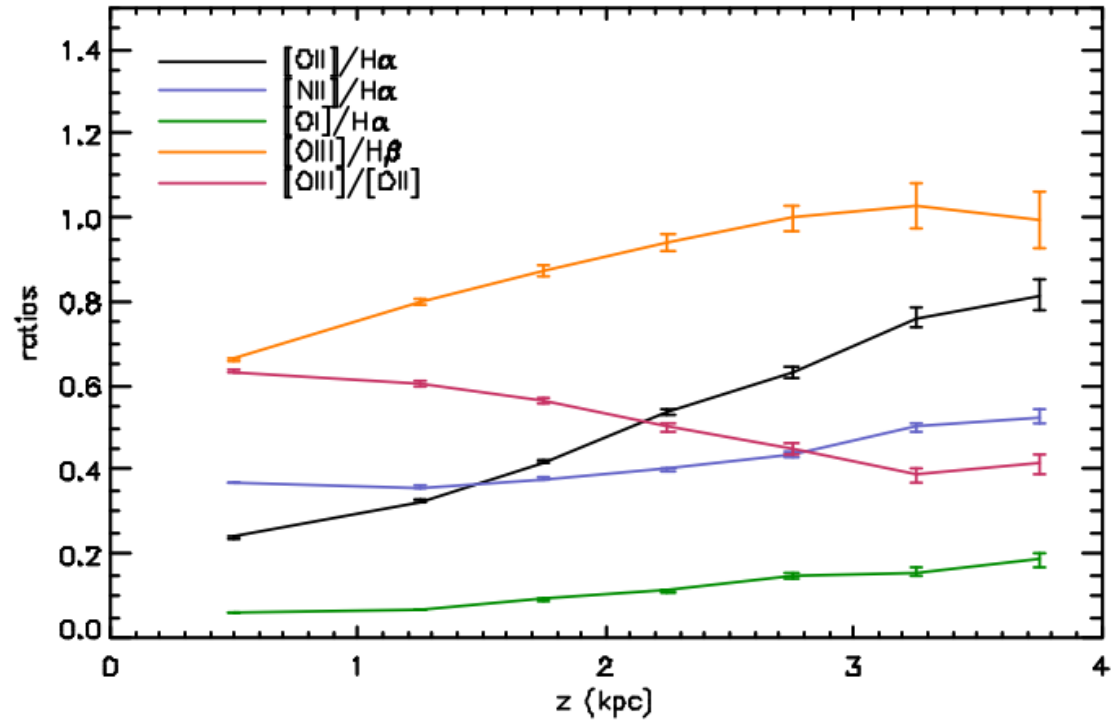
- MaStar
- 通过光度约束全谱拟合
- 需要改进红化改正



星系中的气体

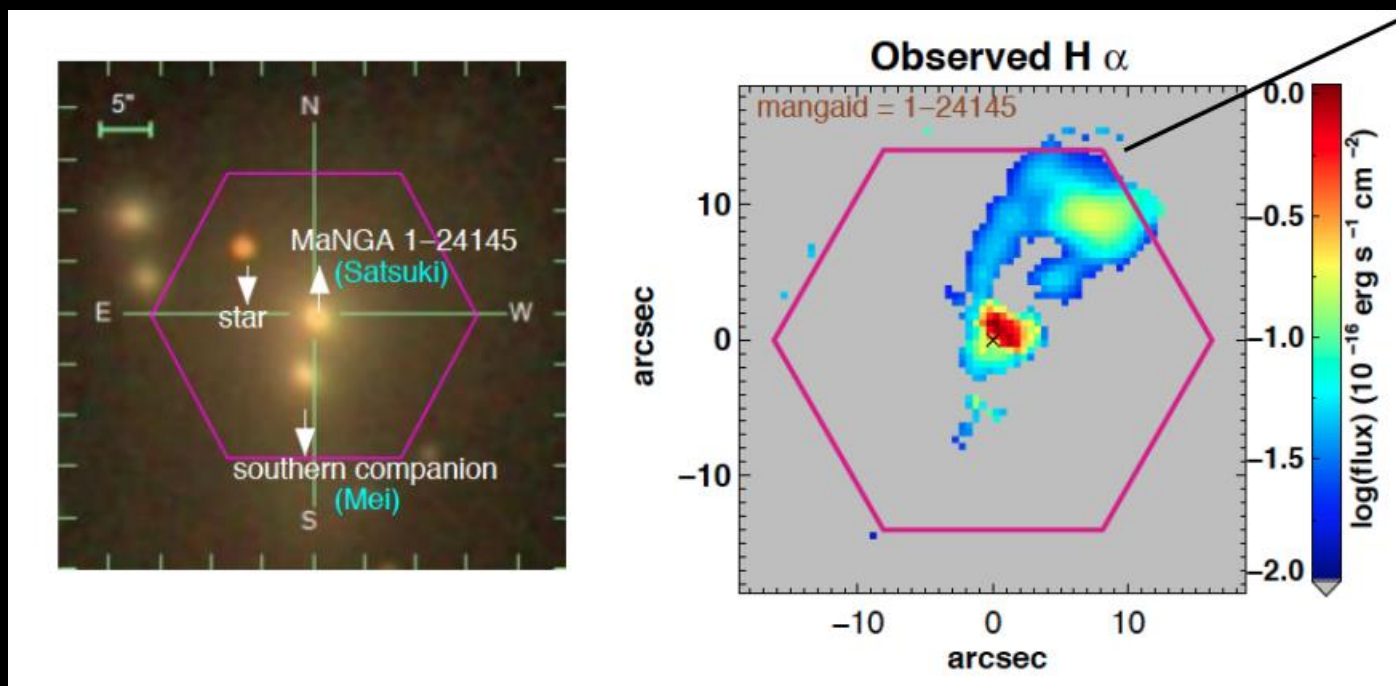
Amy M. Jones

- 不同线强比和半径关系
 - Temperature $OII/H\alpha$
 - Metallicity $NII/H\alpha$
 - Ionization (H) $OI/H\alpha$
 - Photonization $OIII/H\beta$
 - Hardness $OIII/OII$



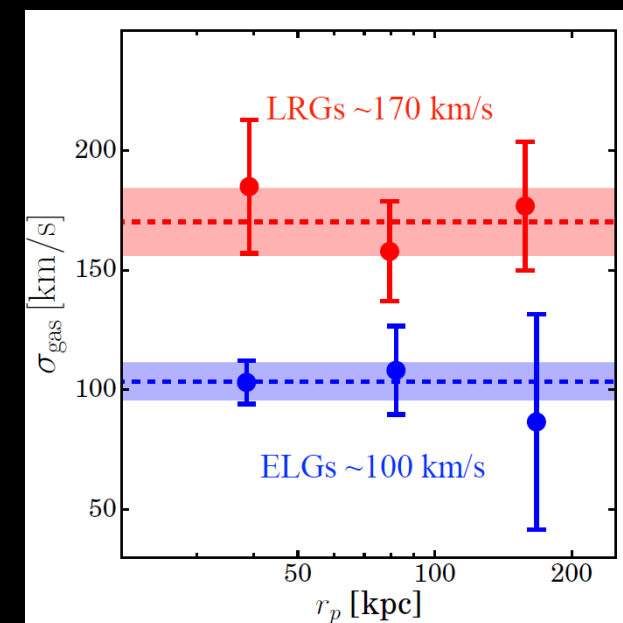
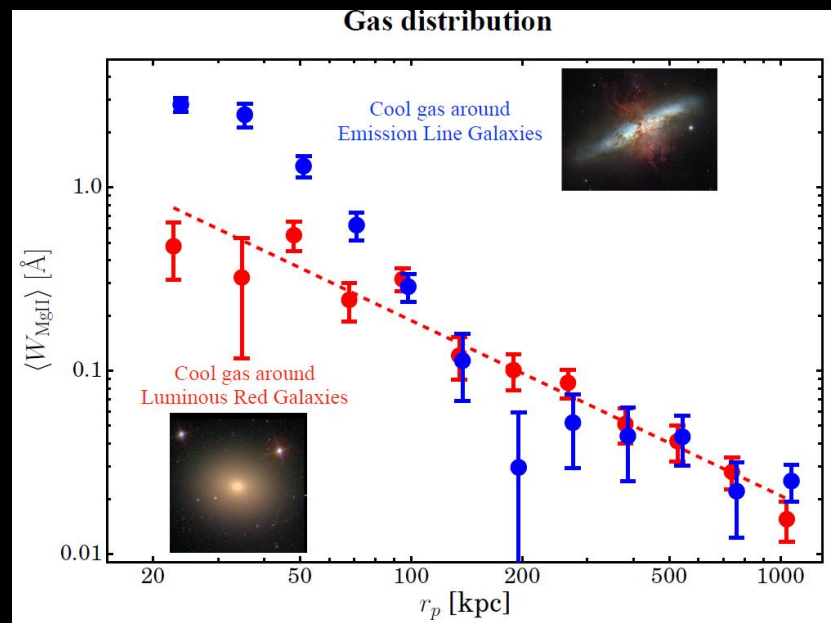
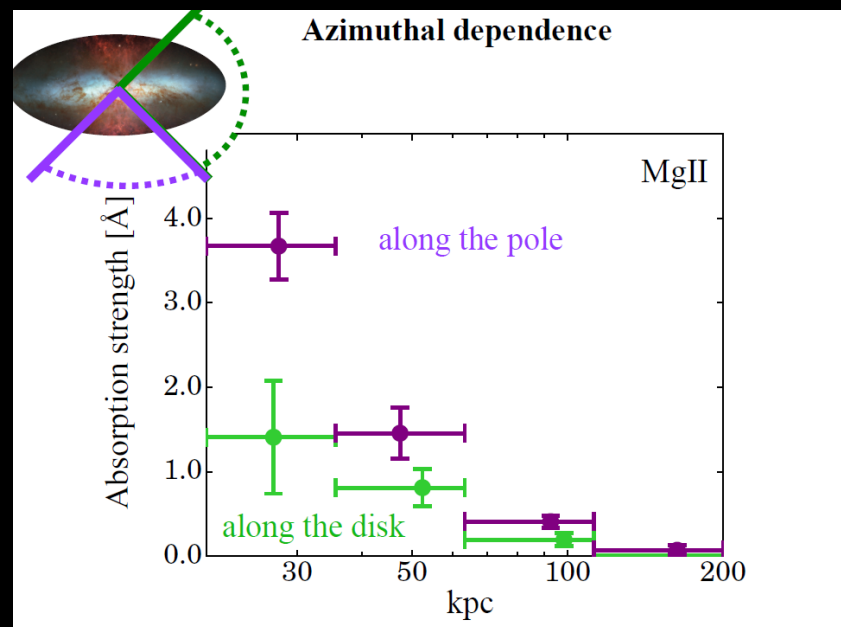
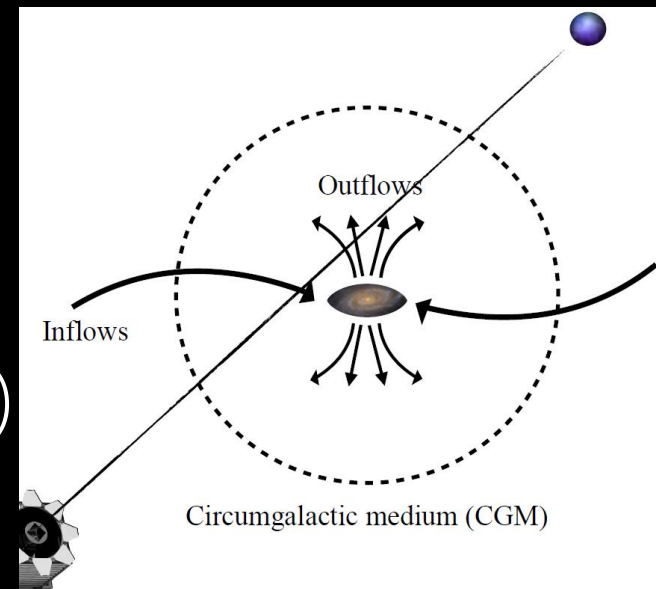
星系外的气体

- Ha blobs (Xihan Ji)
 - 动力学显示曾经和宿主星系有联系
 - 非AGN成分
 - 低恒星形成
- 产生于潮汐作用或并合



星系外气体

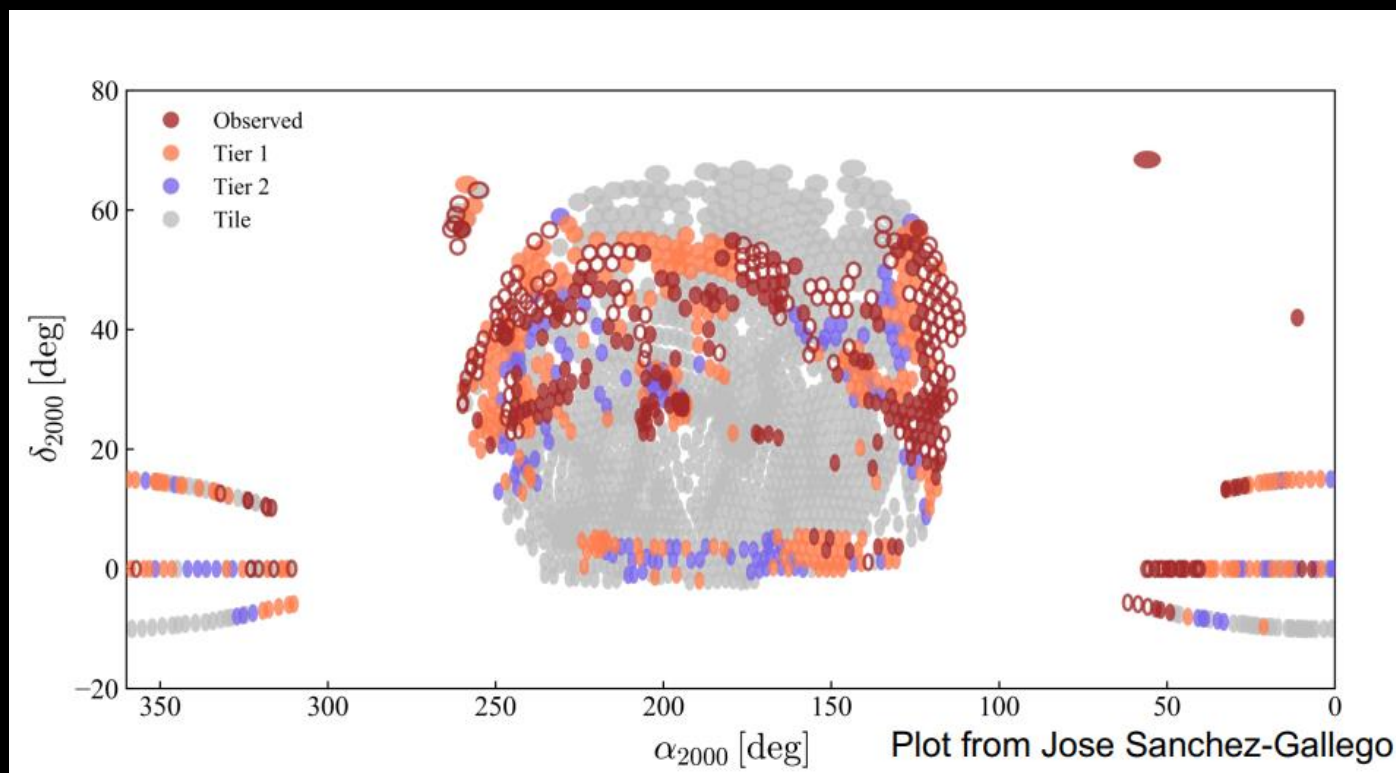
- 通过背景源探测星系周围冷气体 (Ting-Wen Lan)



HI巡天：*HI-MaNGA*

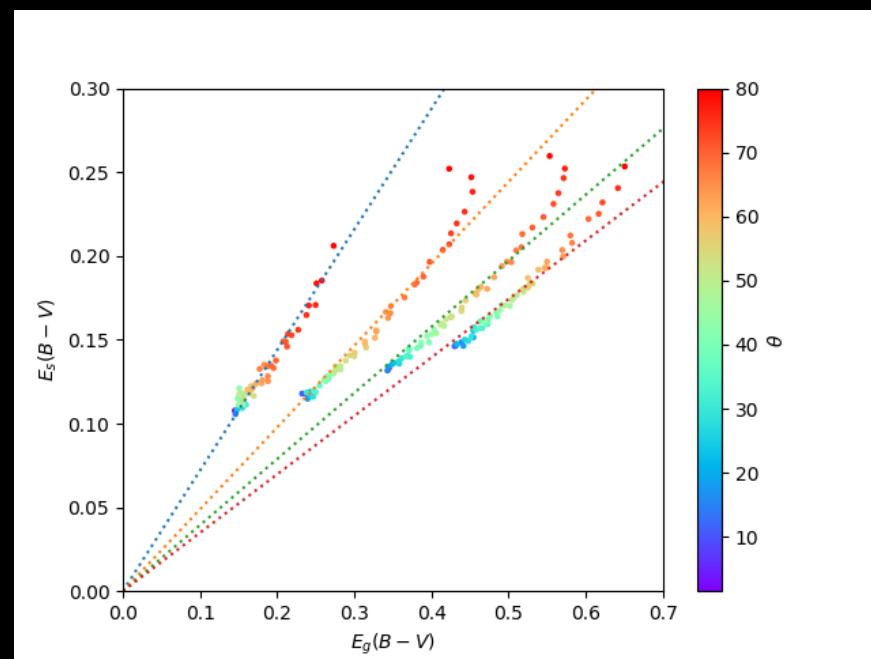
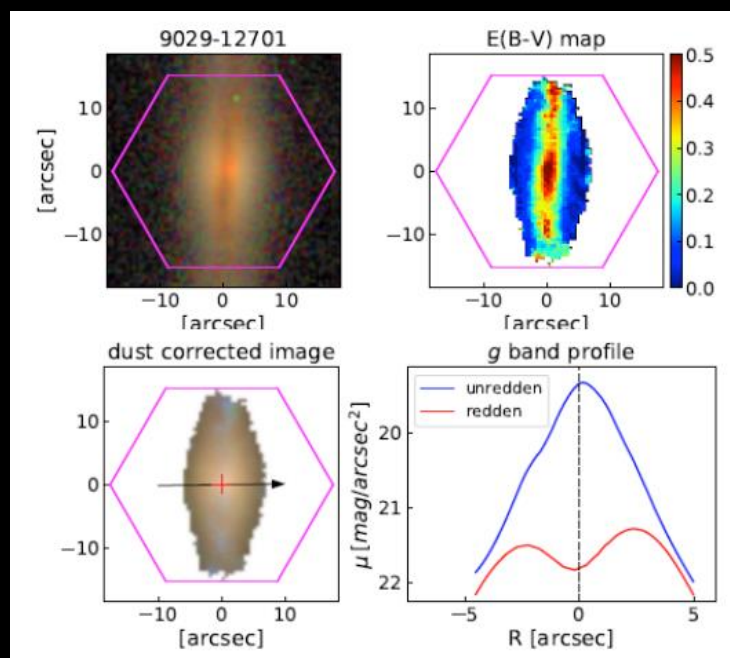
- HI动力学测量半径大
- HI可以用来测量冷气体质量
- 直接追踪冷气体吸积
- 能揭示并合和强相互作用历史
- 测量潮汐尾动力学
- 揭示环境影响机制
- 和quench相关

- GBT



恒星形成星系中的尘埃消光

- 通过类似滤波方法，单独拿出吸收线/发射线成分拟合星族，再得出消光 (Niu Li)
- 消光和倾角金属丰度的关系 (Jiafeng Lu)



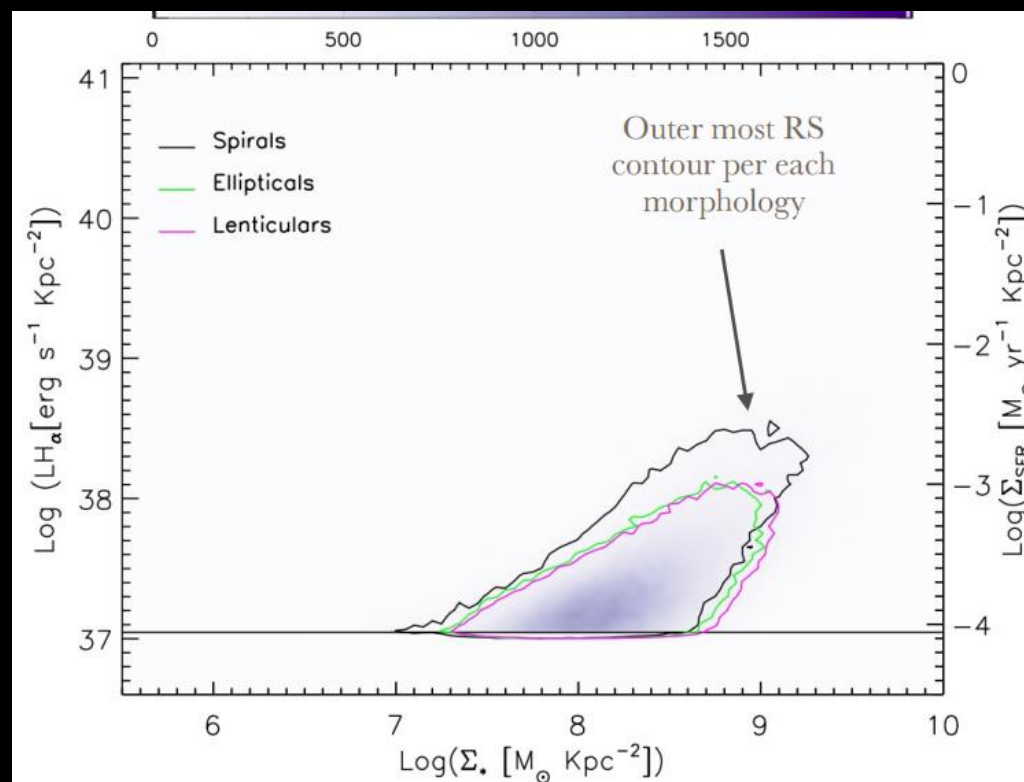
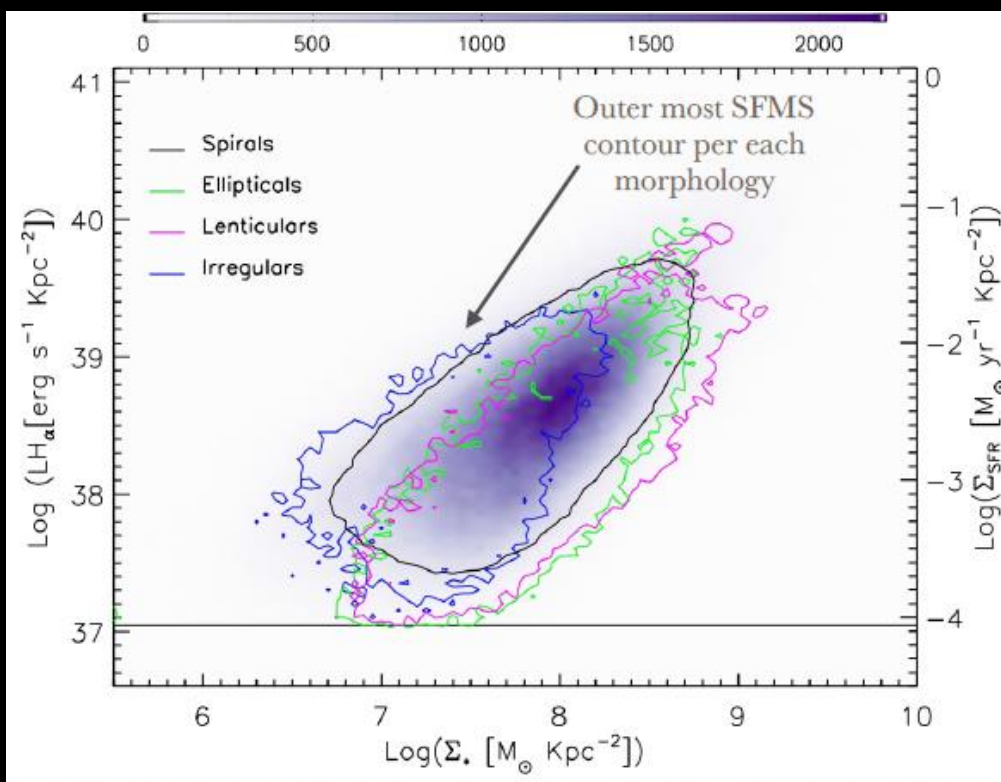
恒星形成星系中的共振线（尘埃吸收）

Camilo Machuca

- 星际弥漫冷气体，吸收光子，由基态到激发态，形成吸收线，Ca II \rightarrow 年龄(D4000), Na I \rightarrow Na 丰度
- Na D
 - 不同视线方向线强不同，经过路径区别
 - 同一星系不同位置线宽不同：速度弥散
- Ca H&K 没有区别
 - D4000
 - 利用该特征可以估计年龄

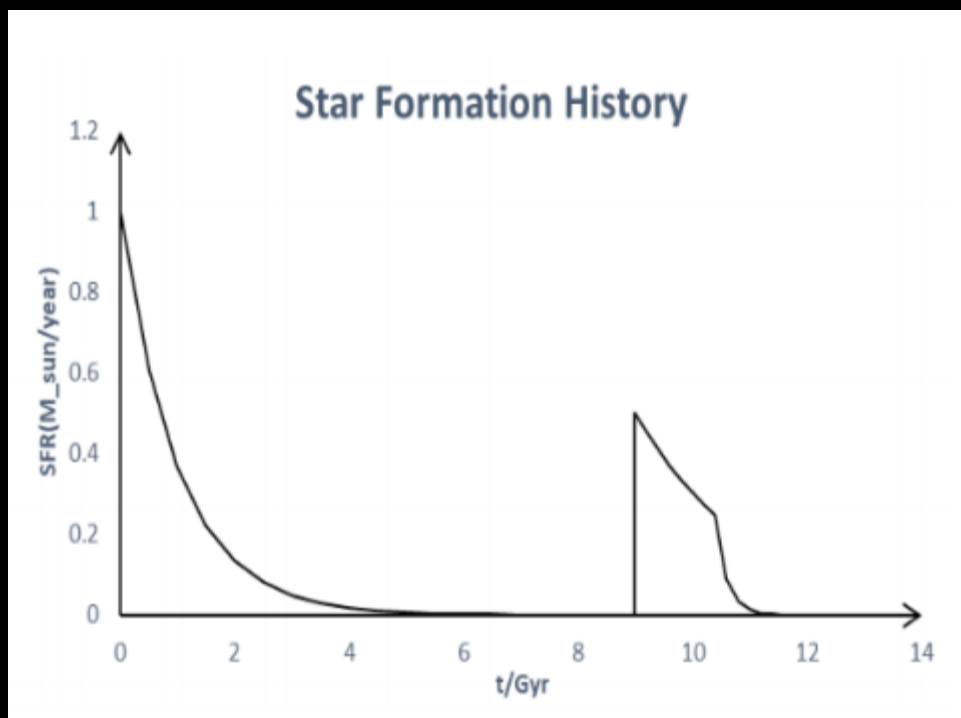
恒星形成星系

- 不同形态星系主序的差异 (Mariana Cano-Diaz)



后星爆星系

- 后星爆星系的恒星形成历史可以用双指数拟合 (Zhuo Cheng)



中心后星爆和环后星爆 (Yanmei Chen)

- 中心后星爆和环后星爆中心有相似的中心光度占比, 且外围更年轻
- 中心后星爆位于过渡区
- 环后星爆位于恒星形成主序

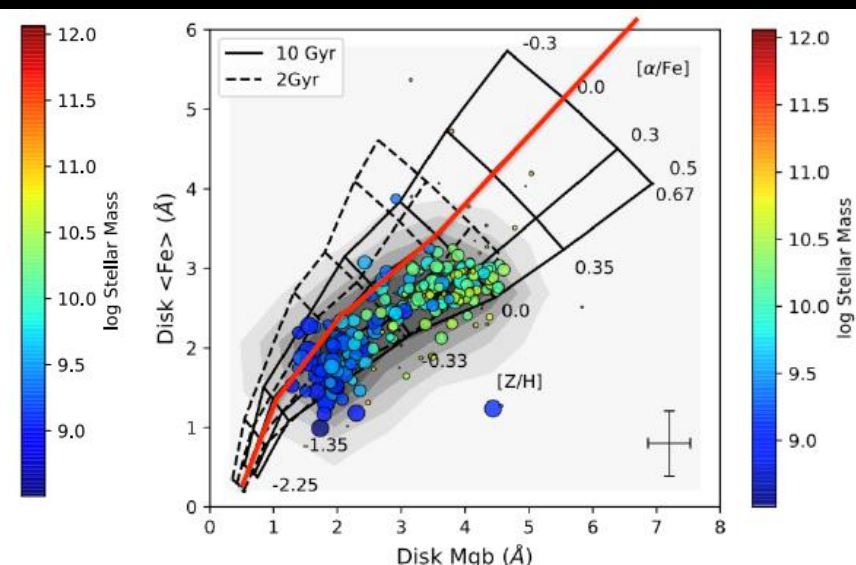
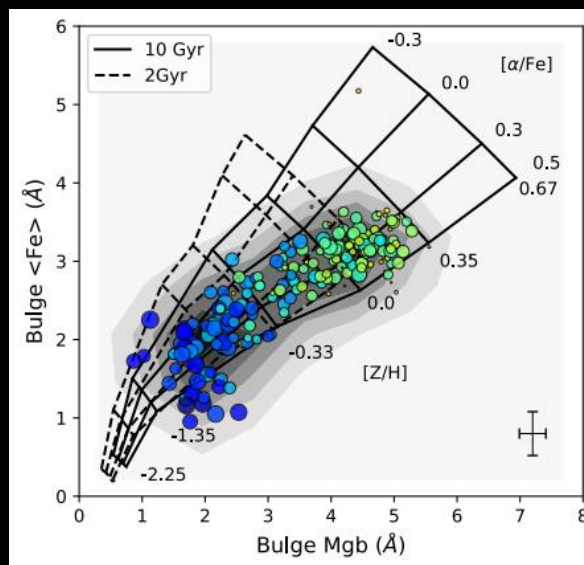
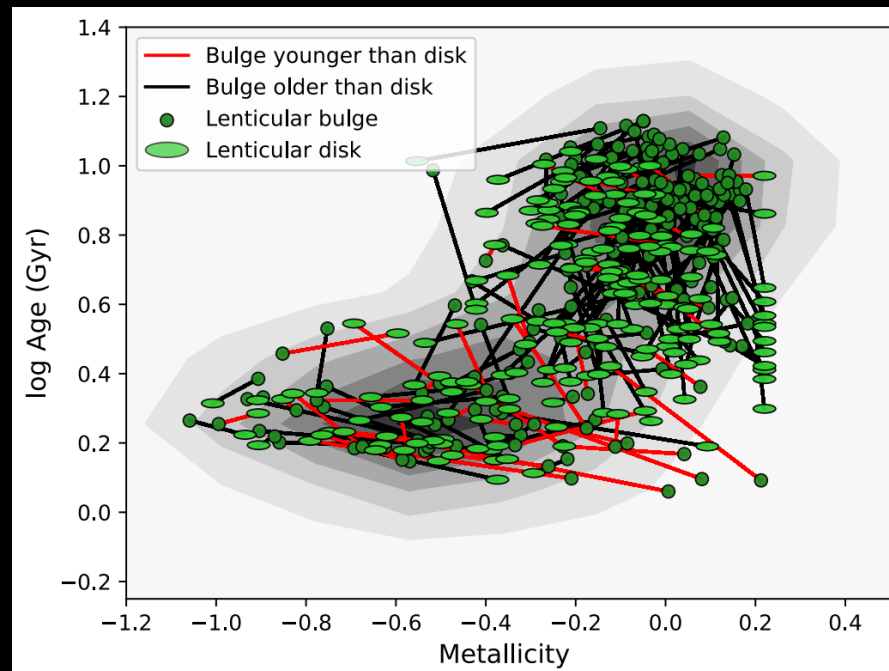
透镜星系

Amelia Fraser-McKelvie

- 大质量，富金属，星族老 (quenched) 星系：核比盘老 (quench? 并合驱动)

- 小质量，贫金属，星族年轻 (恒星形成) 星系：核比盘年轻，气体内落

- S0中高 α/Fe 星占主导



α/Fe 与银河系

- 星系团中星系有高 α/Fe
- 尤其是靠近中心的卫星星系
- 早期形成星系有高 α/Fe
- 银河系的 α/Fe 相对来说不高
- 银河系可能是一个特殊的星系？

