First science from SAMI, the Sydney-AAO Multi-object Integral field spectrograph

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Croom et al. 2012, MNRAS 421, 872; Fogarty et al. (submitted)
SAMI

- 13 hexabundles
- Each bundle has 61 fibres
- Fibres have 1.6” diameter
- Hexabundles have 15” FoV
- Feeds the AAOmega spectrograph
- Will be upgraded at end of 2012

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The SAMI survey(s)

- Pilot survey: 10 nights in September/October, up to 160 galaxies
- Full survey: proposal to observe ~500 galaxies next semester, with more to follow
- Broad range of science goals including kinematics, spatially-resolved stellar populations, star formation, AGN feedback, abundance gradients, effects of environment...
- $z = 0.016$ (68 Mpc)
- Fibre diameter 540 pc, field of view 5070 pc
- SFR $\sim 1.7 \text{ M}_\odot/\text{yr}$, or $0.24 \text{ M}_\odot/\text{yr/kpc}^2$

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• Strong change in ionisation properties away from the disc of the galaxy

• Evidence of SF-driven wind
SDSS J152429.55+082223.5

- SDSS spectrum shows central AGN
- SAMI data shows extended emission away from plane of disc, possible outflow from AGN?

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