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Title: The SAMI Galaxy Survey: Instrument specification and target selection

Authors: Mahajan, Smriti (/jspui/browse?type=author&value=Mahajan%2C+Smriti)

Keywords: Galaxies: evolution

Galaxies: kinematics and dynamics Instrumentation: miscellaneous Instrumentation: spectrographs

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Monthly Notices of the Royal Astronomical Society, 447 (3) pp. 2857-2879.

Abstract:

The SAMI Galaxy Survey will observe 3400 galaxies with the Sydney-AAO Multi-object Integral-field spectrograph (SAMI) on the Anglo-Australian Telescope in a 3-yr survey which began in 2013. We present the throughput of the SAMI system, the science basis and specifications for the target selection, the survey observation plan and the combined properties of the selected galaxies. The survey includes four volume-limited galaxy samples based on cuts in a proxy for stellar mass, along with low-stellar-mass dwarf galaxies all selected from the Galaxy And Mass Assembly (GAMA) survey. The GAMA regions were selected because of the vast array of ancillary data available, including ultraviolet through to radio bands. These fields are on the celestial equator at 9, 12 and 14.5 h, and cover a total of 144 deg2 (in GAMA-I). Higher density environments are also included with the addition of eight clusters. The clusters have spectroscopy from 2-degree Field Galaxy Redshift Survey (2dFGRS) and Sloan Digital Sky Survey (SDSS) and photometry in regions covered by the SDSS and/or VLT Survey Telescope/ATLAS. The aim is to cover a broad range in stellar mass and environment, and therefore the primary survey targets cover redshifts 0.004<z<0.095, magnitudes rpet <19.4, stellar masses 107-1012 M②, and environments from isolated field galaxies through groups to clusters of ~1015

Description: Only IISERM authors are available in the record.

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