XV Serbian Conference on Spectral Line Shapes in Astrophysics, June 9 - 13, 2025, Niš, Serbia
Book of Abstracts, Eds. P. Marziani, M. S. Dimitrijević, L. Č. Popović and Đ. Savić
Astronomical Observatory Belgrade, Special Issues No. 2
https://doi.org/10.69646/15scslsa15

GREEN BEAN GALAXIES AND THE FADING ECHOES OF AGN ACTIVITY

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"Green bean" galaxies, thought to be remnants of quasar ionisation, are extended ionised clouds detected in the SDSS sky survey at redshifts up to $z \sim 0.2-0.6$. They appear elongated and have a bright green colour in optical images. We present observations of a sample of these galaxies obtained with the Russian 6-m telescope, utilizing both long-slit spectroscopy and 3D spectroscopy with scanning Fabry-Perot interferometer. While their characteristic green colour may be explained by [O III] λ5007 line emission redshifted into the r-filter, the origin of their gas reservoirs and the accretion histories of radio-emitting remain poorly understood. Our study focuses on ionisation properties, kinematics, and morphology of the external gaseous clouds, with particular attention to spatial variations in line ratios and velocity structures. Furthermore, we investigate the relation between the ionized gas systems and synchrotron radio emission, probing whether they exhibit signatures of past or ongoing jet activity. This allows us to explore the phases of AGN activity cycles, including possible transitions between "on" and "off" states, and the role of radio feedback in shaping the ionised gas.