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Line, LINER, linest - from micro-AGN to ultra-luminous LINERS. One and the same?

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Abstract content
 (Max 300 words)

This paper compares the optical spectra of a wide range of galaxies categorised as members of the Low Ionisation Nuclear Emission Region (LINER) class of active galactic nuclei (AGN). LINERs are defined by emission spectra with relatively faint high ionisation lines (compared to other AGN classes). The gas emission luminosity ranges from the weak flux emanating from some nearby galactic nuclei all the way to extremely luminous radio galaxies, where the line emission can completely dominate the host galaxy starlight component. In this study I analyse the Sloan Digital Sky Survey optical spectra of 20 LINERS identified in the course of the preparation of the new edition of the ZORROASTER AGN catalogue, spanning the largest possible luminosity range. I compare relative emission line strengths, focusing on uncommonly analysed ratios such as those involving [N I], line widths, profiles and even the spectral features of the host galaxy stellar continuum. The study identifies possible luminosity-dependent trends in the spectral properties of the studied objects. Possible reasons are presented to rationalise these trends, and the paper concludes with a discussion regarding the uniformity of the LINER class.

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