

BPT- σ relation in local galaxies.

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Study of the state of ionized gas in galaxies is crucial for understanding a galactic evolution and effects of stellar feedback. Emission lines ratio diagrams (also known as Baldwin-Phillips-Terlevich plots) is a traditional method for analysis of the state of the ionized gas emitting in the optical range. Although it helps easily to separate main ionization sources (like young stars in the H II regions, active galactic nuclei et al.), there are difficulties appearing in intermediate cases. For objects with shocks ionization this problem could be solved by adding to classical BPT-diagrams an extra parameter — line-of-sight velocity dispersion of the ionized gas (σ). We combined velocity dispersion maps obtained with scanning Fabry-Perot Interferometer at the 6-m telescope BTA with emission line ratios obtained from the different integral-field spectroscopy data to analyse the interstellar medium in local galaxies with different sources of ionization.