

The flux ratio of the [O III] $\lambda\lambda 5007, 4959$ Å lines in AGN

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Abstract. Here we present the measurements of the flux ratio of the [OIII] $\lambda\lambda 4959, 5007$ Å emission lines for the sample of 10 AGNs, obtained from SDSS Database and from the published observations. We selected the sample using the criteria of high signal to noise ratio and the same line shapes of $\lambda 4959$ and $\lambda 5007$ lines. We separated our sample in two subsamples: first one with red asymmetry of [OIII] $\lambda\lambda 4959, 5007$ Å lines, where we obtained the average flux ratio of 2.981 ± 0.268 and second one with no asymmetry of [OIII] $\lambda\lambda 4959, 5007$ Å lines, where we obtained the average flux ratio of 2.885 ± 0.173 . For the total sample of ten spectra we found that the flux ratio is 2.943 ± 0.149 so the theoretical value of 2.98 befalls within the error band of our result.