

Short talk

**DETAILED ANALYSIS OF BALMER LINES IN
A SELECTED SAMPLE OF 90 BROAD LINE AGN**

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To investigate the physical conditions within the Broad Line Region (BLR) of Active Galactic Nuclei (AGN) we studied the spectral properties in a sample of 90 broad line emitting sources, collected at the Sloan Digital Sky Survey (SDSS) database. Taking into account the Balmer series of hydrogen emission lines, we analyzed the broad line components, from which we extracted several flux and profile measurements. Our determinations were compared with some of the source physical properties, such as the continuum source mass, luminosity, and accretion rate, in order to test within our sample the reliability of some common assumptions and recent techniques, which are sometimes used to explore the physics of AGN.

Short talk

**THE EVOLUTION OF SOME PHYSICAL PARAMETERS IN
THE DACs/SACs REGIONS IN Be STELLAR ATMOSPHERES**

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In this study we present the evolution of the kinematic parameters and the optical depth, from the photosphere to the extreme cool envelope and we compare our results with the other bibliographic results. In order to analyse the stellar spectra we use the method proposed by Danezis et al. (2003) and we conclude that the SACs/DACs phenomena are able to explain, in a unique way, the complex and peculiar observed profiles. These results arise from the study of the Mg II ($\lambda\lambda$ 2795.523, 2802.698 Å), Si IV ($\lambda\lambda$ 1393.755, 1402.77 Å), and H α (λ 6562,817 Å) region of a great number of Be stars of all spectral subtypes and luminosity classes (64 in the case of Mg II resonance lines and 70 in the case of Si IV resonance lines). For the study of the regions which create the complex H α line profiles we analyzed the OHP (Observatory of Haute Provence) spectrographs of 120 Be stars of all spectral subtypes and luminosity classes.