

**MULTICOMPONENT ANALYSIS OF Si IV AND C IV BROAD
ABSORPTION AND EMISSION PROFILES OF BALQSOs.
ANSWERING SOME IMPORTANT QUESTIONS**

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As we know, BAL quasars present broad and complex absorption and emission profiles of high ionization lines such as Si IV and C IV. Many researchers propose that these profiles are the synthesis of a number of individual doublets of resonance lines of Si IV and C IV. These doublets are produced by individual density enhancements that intercept the continuum along the line of sight. In order to analyze the complex Si IV and C IV spectral regions we use the Danezis et al. 2009 method. The application of this method in the study of quasars may give rise to some basic questions that concern the results of spectral fitting. Some of these questions are: i) the physics that underlies this method, ii) the mathematical expression of the physical model, iii) the exact number of components that are required to reproduce the complex absorption/emission profiles, iv) the uniqueness of the calculated values of the parameters that this method is able to measure. In this paper, we answer to the previous questions and we give an application of this method, in the case of two BALQSOs.