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Progress Report

TIME-SCALE VARIATION OF THE COMPONENTS THAT FORM THE C IV AND Si IV DACs IN THE UV SPECTRUM OF THE O-STAR HD 93521

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In this paper we analyse the C IV and Si IV broad absorption troughs in the O-star HD 93521, in four different periods in a time interval of 16 years, to the individual components they consists of.

By analysing a DAC/SAC trough to its components we have the advantage to study the variations of the individual absorbing systems in the line of sight and not just the variations of the whole absorption trough or the variations of selected portions of DAC troughs exhibiting changes.

Specifically, we examine the time-scale variation of the radial velocities as well as the line fluxes of these absorption components. Our aim is to test the idea that DACs complex profiles are the product of individual components, originating from a series of dense plasma regions embedded in an expanding stellar wind, can be confirmed through the variability of DACs absorption troughs.