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Progress Report

ON THE VARIABILITY OF Lyα, N V, Si IV and C IV BAL COMPONENTS OF THE BALQSO J131912.39+534720

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Utilizing three epoch spectra of the Broad Absorption Line (BAL) quasar J131912.39+534720.5, we perform multicomponent fits to Lyα, N V, Si IV and C IV BALs. We uniquely analyze each BAL trough to nine doublets and we calculate the radial velocities, optical depths, FWHMs and column densities of each absorption component. By resolving each BAL to the uniquely determined number of components it consists of, we study the kinematics, physical conditions and time variability of each absorbing system in the line of sight. Our analysis shows that Lya, N V, Si IV and C IV BALs originate in the same clumpy clouds which have similar locations, kinematic structure and physical conditions. Variability occurs only in individual components within the BAL troughs which exhibit changes in their optical depths as well as column densities. We conclude that the most possible cause of variability is due to changes in the ionization state of the outflowing gas clouds.