

*Poster paper*

### **THE N IV DENSITY REGIONS IN THE SPECTRA OF 20 Oe STARS**

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Here we analyze the presence of Satellite Absorption Components (SACs) in the N IV spectral lines of 20 Oe stars of different spectral subtypes and we study the physical parameters which characterize the N IV density regions in the atmospheres of 20 Oe stars. We apply the method proposed by Danezis et al. (2003, 2005) on the spectra of 20 Oe stars, taken with I.U.E. We found that the N IV spectral line consists of one or two Satellite Absorption Components. We calculate the values of the apparent rotational and radial velocities, the Gaussian standard deviation of the random motions of the ions, the random velocities of these motions, as well as the optical depth, the column density, the Full Width at Half Maximum (FWHM), the absorbed and the emitted energy of the independent regions of matter which produce the main and the satellites components of the studied spectral lines. Finally, we present the variations of these physical parameters as a function of the spectral subtype.

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### **RADIAL DEPENDENCE OF EXTINCTION IN PARENT GALAXIES OF SUPERNOVAE**

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The problem of extinction is the most important issue to be dealt with, in the process of obtaining true absolute magnitudes of core-collapse supernovae (SNe). The plane-parallel model which gives absorption dependent on galaxy inclination, widely used in the past, was shown not to describe extinction adequately. We try to apply an alternative model which introduces radial dependence of extinction. A certain trend of dimmer SNe with decreasing radius from the center of a galaxy was found, for a chosen sample of stripped-envelope SNe.