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Program and Abstracts

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ATMOSPHERES OF CP STARS: MAGNETIC FIELD EFFECTS

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We present the resent calculations of magnetic field effects in atmospheres of CP stars. The calculations are based on *LLmodels* stellar model atmosphere code which implements direct treatment of the opacities due to the bound-bound transitions and ensures an accurate and detailed description of the line absorption. In these studies we focus on two general problems: the calculations of anomalous Zeeman splitting and the effects of Lorentz force in stellar atmospheres. First, we investigate the influence of the enhanced line blanketing due to the Zeeman effect on model structure, energy distribution, photometric colors, metallic line spectra and the hydrogen Balmer line profiles. The results are discussed with respect to those of non-magnetic models. As a next step we modelled the Lorentz force results from the interaction between the stellar magnetic field and the electric currents induced by time evolution of global dipolar-like field. This additional force may modify the pressure-temperature structure influences the formation of absorption spectral features, especially the Balmer line profiles. The results of this study are investigated using resent observations of A0p star θ Aur obtained with BOES echelle spectrograpth of the 1.8 m telescope of the Korean Astronomy Observatory.