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Invited lecture

MULTIPLE PERTURBER EFFECTS DUE TO H-He COLLISIONS IN THE FAR RED WING OF Lyα LINE

Magdalena Christova[1] and Nicole F. Allard[2]

[1] *Technical University of Sofia, Department of Applied Physics, Sofia, Bulgaria*
E-mail: mchristo@tu-sofia.bg

[2] *Observatoire de Paris, GEPI, UMR 8111, CNRS,*
61, Avenue de l'Observatoire, F-75014 Paris, France
E-mail: nicole.allard@obspm.fr

In Allard and Kielkopf (2009) we presented a temperature and density dependence of the Lyman α line wing in DA white dwarfs atmospheres. In that paper we pointed out that the importance of close collisions of many perturbers leads to the formation of a series of satellites in the far red wing of Lyman α. Our study was restricted to H-H collisions but other perturbing species are also present in cool white dwarf atmospheres. We have now included the effects of He on the Lyman α profile. Multiple-perturber effects due to the $X \rightarrow C$ transition of H-He profiles appear in the blue wing. We will present our new study of the red wings of Lyman α perturbed by H and He.

References

Allard, N. F., Kielkopf, J. F.: 2009, *A&A*, **493**, 1155.