

**STUDYING THE COMPLEX ABSORPTION AND
EMISSION LINES IN AGN SPECTRA**

E. Chatzichristou¹, E. Danezis², L. Č. Popović³, E. Lyrtzi², M. S. Dimitrijević³

¹*Institute of Astronomy and Astrophysics, National Observatory of Athens
Lofos Nymfon, Thiseio, P.O.Box 20048GR-11810 Athens, Greece.*

²*University of Athens, Faculty of Physics, Department of Astrophysics, Astronomy and
Mechanics, Panepistimioupoli, Zographou 157 84, Athens – Greece*

³*Astronomical Observatory, Volgina 7, 11160 Belgrade, Serbia*

Some spectra of AGN present peculiar profiles that result from dynamical processes such as accretion and/or ejection of matter from these objects. In this paper we explain the idea of DACs/SACs phenomena, as a reason of spectral lines peculiarity in AGN. We present the main points of a kinematical model enabling us to study the density regions in the plasma surrounding of the studied objects, where DACs/SACs of a spectral line are created producing the observed peculiar profiles. Using this model we study a number of spectral lines in the spectra of eight AGN presenting a plain analysis of the physical parameters of the regions where these spectral lines are created. Finally, we try to present some ideas about the origin of the phenomena responsible for the observed peculiar profiles of the studied AGN spectral lines.