

WAYS OF CREATION OF SACs AND DACs IN THE PLASMA AROUND QUASARS

**Evaggelia Lyratzi^{1,2}, Emmanouil Danezis¹, Luka Č. Popović³,
Milan S. Dimitrijević³ and Antonis Antoniou¹**

¹*University of Athens, Faculty of Physics*

*Department of Astrophysics, Astronomy and Mechanics,
Panepistimioupoli, Zographou 157 84, Athens, Greece*

E-mail: elyratzi@phys.uoa.gr, edanezis@phys.uoa.gr, ananton@phys.uoa.gr

²*Eugenides Foundation, 387 Sygrou Av., 17564, Athens, Greece*

³*Astronomical Observatory, Volgina 7, 11060 Belgrade 38, Serbia*

E-mail: lpopovic@aob.bg.ac.yu, mdimitrijevic@aob.bg.ac.yu

In the spectra of some quasars, like PG 0946+301 we can detect clearly the DACs and/or SACs phenomenon. We have explained the observed complex profiles with GR model (Gauss-Rotation model) that has as main hypothesis that in the stellar envelop we can detect a number of independent and successive absorbing or emitting spherical density regions of matter. As the area that contains these spherical density regions is much extended, it is possible that these regions are not successive. However, if this is true, then the GR model must be modified. In this study, we apply the GR model to some spectral lines of quasars in two ways. First, with the classical way of GR model that supposes successive regions and second with a new approach, which supposes independent but not successive regions. Finally, we compare the results of the two methods and try to conclude to the best one in the case of quasars.