ARE BOLTZMANN PLOTS OF HYDROGEN BALMER LINES A TOOL FOR IDENTIFYING A SUBCLASS OF S1 AGN?

P. Rafanelli¹, S. Ciroi¹, V. Cracco¹, F. Di Mille¹, D. Ilić³, G. La Mura², L. Č. Popović⁴

¹Department of Physics and Astronomy, University of Padua, Vicolo dell'Osservatorio 3, Padua, Italy ²Institute for Astro- and Particle Physics, University of Innsbruck, Technikerstr. 25/8, Innsbruck, Austria ³Department of Astronomy, Faculty of Mathematics, University of Belgrade, Studentski try 16, 11000 Belgrade, Serbia ⁴Astronomical Observatory, Volqina 7, 11060 Belgrade, Serbia

It is becoming clear that we can define two different types of nearby AGN belonging to the Seyfert-1 class (S1), on the basis of the match or less of the intensities of their Broad Balmer Lines (BBL) with the Boltzmann Plots (BP). These two types of S1 galaxies, that we call BP-S1 and noBP-S1 galaxies are characterized in first approximation by Broad Line Regions (BLR) which bear quite different structural and physical properties. We show in this communication that these features can be well pointed out by a multiwavelength analysis of the continuum and of the broad recombination Hydrogen lines. The investigation is addressed to verify whether BP-S1 are the ideal candidates for the study of the kinematical and structural properties of the BLR, for a reliable guess of the mass of their central engine and for the observation of their nuclear continuum spectrum.