

# THE INFLUENCE OF THE INTERNAL REDDENING ON ESTIMATION OF BLACK HOLE MASS IN QUASARS

SLADJANA MARČETA-MANDIĆ<sup>1,2</sup>, JELENA KOVAČEVIĆ-DOJČINOVIĆ<sup>1</sup>, LUKA Č. POPOVIĆ<sup>1,2</sup>

<sup>1</sup>*Astronomical Observatory, Volgina 7, 11060 Belgrade, Serbia*

<sup>2</sup>*Mathematical Faculty, University of Belgrade, Studentski trg 16, 11000 Belgrade, Serbia*

E-mail: sladjana@aob.rs

Here we investigate the influence of the internal (intrinsic) reddening (caused by the extinction within the quasars) on estimation of the central black hole mass in 84 quasars, using the spectra obtained from the SDSS database. This investigation aims to improve a relatively weak correlation (Spearman coefficient  $\rho=0.47$   $P_0=5.6E-6$ ) found between the masses of the supermassive black holes obtained by the virial method (using the width of  $H\beta$ ) and those estimated using the  $M-\sigma$  correlation.