## X Serbian-Bulgarian Astronomical Conference (X SBAC) May 30 - June 3, 2016, Belgrade, Serbia Book of Abstracts, Eds. M. S. Dimitrijević and M. K. Tsvetkov Astronomical Observatory, Belgrade, 2016

Short talk

## POLARIZATION IN AGN BROAD EMISSION LINES – THE CENTRAL SOURCE ANIZOTROPY AND GAS KINEMATICS

Djordje V. Savić<sup>1</sup>, Rene W. Goosmann<sup>2</sup>, Martin Gaskell<sup>3</sup>, Frederic Marin<sup>2</sup> and Luka Č. Popović<sup>1</sup>

<sup>1</sup>Astronomical Observatory Belgrade, Volgina 7, 11060 Belgrade, Serbia <sup>2</sup>Observatoire Astronomique de Strasbourg, Université de Strasbourg, CNRS, UMR 7550, 11 rue de l'Université, 67000 Strasbourg, France <sup>3</sup>University of California, Santa Cruz, 1156 High St, Santa Cruz, CA 95064, United States

E-mail: djsavic@aob.rs

We investigate the polarized broad line (BLR) emission in active galactic nuclei (AGN) using the 3D Monte Carlo radiative transfer code STOKES (Goosmann et al. 2013). We consider a model where the central engine consists of two point-like continuum sources, with one of the continuum sources being off-centered. The BLR is modeled using a flared-disk geometry with Keplerian rotation, where absorption, re-emission and scattering can occur. We discuss our results in the frame of the close super-massive black hole binary hypothesis.

## References

Goosmann, R. W., Gaskell, C. M., Marin, F.: 2013, Advances in Space Research, 54, 1341.