

**LONG-TERM MONITORING SUPER-MASSIVE BINARY
CANDIDATES: VARIABILITY IN THE BROAD LINES
AND CONTINUUM**

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Here we modeled the variation in the broad emission lines and continuum during several orbits of a super-massive black hole binary system. We assume that both black holes have accretion disks and broad line regions (BLRs). The BLR dimensions are connected with the luminosity of the central sources, and kinematics with the masses of components. We include gravitational interaction between components that affects the temperature and rate of accretion in each component, after that we modeled the line and continuum light curves for several orbital periods. Including the white noise in the continuum and line, we perform the cross correlation function (to find time lag between the continuum and broad line variability) and Lomb-Scargle periodogram (to find the periodicity) to the simulated light curves. We discuss the long-term monitoring as a perspective to confirm super-massive black hole binary systems in some AGNs which show some other indications (as e.g. double peaked lines, high offset in the broad line center) for binarity.