

## DETECTING OUTFLOWS IN SUPER MASSIVE BINARY BLACK HOLE SYSTEMS

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Light curves and emission lines radial velocity curves from super massive binary black hole (SMBBH) systems shows some periodical variations that differ from expected Keplerian orbital signatures. Those variations are with shorter periodicity than the orbital period of binary system. These shorter variations might be due to outflows, jets or biconical winds. Here we present case studies, with possible outflow models.

## ON THE STARK BROADENING PARAMETERS OF SPECTRAL LINES OF NEUTRAL NEON

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In order to complete Stark broadening data for Ne I spectral lines, needed for analysis of stellar atmospheres, we determined, within the semiclassical perturbation method, the missing data for the broadening by collisions with electrons, protons and ionized helium, for 25 spectral lines of neutral neon. The obtained data will be included in the STARK-B database, which is a part of the Virtual Atomic and Molecular Data Center.