

## **THE ORBIT OF THE SUPERMASSIVE BINARY BLACK HOLE FROM RADIAL VELOCITIES**

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We used optical spectra of over 20 years of observations of NGC 4151, observed from 1986 to 2006, and found periodicity of the flux variations of about 5700 days, in the lines, continuum and some parts of the line profiles. Using Gaussian decomposition of line profiles we obtained orbital elements from each component velocity curves and found that they could correspond to the binary system of supermassive black holes on eccentric orbit of sub-parsec scale, with a period of 5780 days.