

*Poster paper*

## **DETECTING SUBPARSEC SUPER-MASSIVE BINARY - LONG TERM MONITORING PERSPECTIVE**

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Here we modeled the expected spectral variability of an AGN where the supermassive binary black holes are present in the center. We consider the eclipsing effects and disc temperature variation due to the binary component interactions. Periodical and quasi-periodical line and continuum flux variations are expected and we explore the possibility of observations of these effects during spectral monitoring campaigns

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## **SHAPE OF IRON $K\alpha$ LINE AND ACCRETION DISK PARAMETERS IN TYPE 1 AGN**

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To investigate the shapes of the iron  $K\alpha$  line detected in the X-ray spectra of Type 1 AGNs and their relation with the disk parameters, we model relativistic accretion disks around supermassive black holes. We generated several thousand of models and compared them with the *XMM-Newton* observations of the iron  $K\alpha$  lines in Seyfert 1 galaxies. The results show that the parameters of the disk have an important influence on the iron  $K\alpha$  line profiles and we discussed the fact that the broad iron  $K\alpha$  line is observed in the less than 50% of Type 1 AGNs.