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*Poster*

## CONTRIBUTION TO SED OF AGNs INDUCED BY POSSIBLE DENSITY PERTURBATIONS IN COMPLEX GEOMETRY OF BINARY SYSTEMS

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Here we test effects of emission from specific configurations of binary black hole systems, as a source of continuum flux variations of such objects. We consider that rotational motion of BHs in dense environment can induce density perturbation in form of a spiral arms extended from the BH disks. We compute the output of the binary BH emission considering the complex geometry which include the mini accretion disks around each BH and surrounding circumbinary disk.

*Progress Report*

## LINE SHIFTS IN SUPER MASSIVE BINARY BLACK HOLES

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Here we discussed the line shifts that should be present in sub-parsec super-massive binary black holes (SMBBHs) where one or two of the components have a broad line region (BLR). Especially we discuss the possibility to use the line shift to detect an SMBBH. We present the results of our model, and find that the line shift and line shape are depending on dynamical parameters of an SMMBBH system.