## Sixteenth Marcel Grossmann Meeting



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Type: Talk in the parallel session

## Limiting effects in tori clusters

Monday, 5 July 2021 19:10 (20 minutes)

We consider agglomerates of misaligned tori orbiting a supermassive black hole. The aggregate of tilted tori is modelled as a single orbiting configuration by introducing a leading function governing the distribution of toroids (and maximum pressure points inside the disks) around the black hole attractor. The orbiting clusters are composed by geometrically thick, pressure supported, perfect fluid tori.

This analysis places constraints on the existence and properties of tilted tori and more general aggregates of orbiting disks.

We study the constraints on the tori collision emergence and the instability of the agglomerates of tori with general relative inclination angles, the possible effects of the tori geometrical thickness and on the oscillatory phenomena.

Some notes are discussed on the orbiting ringed structure in dependence of the dimensionless parameter  $\xi$  representing

the (total) BH rotational energy extractable versus the mass of the BH, associating  $\xi$  to the characteristics of the accretion processes.

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Session Classification: Accretion Discs and Jets

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