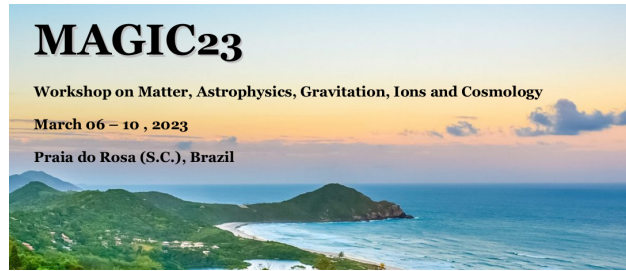


MAGIC23 Workshop (Matter, Astrophysics, Gravitation, Ions and Cosmology)



Contribution ID: 51

Type: **Oral**

M87* and Sgr A*: Imaging supermassive black holes

I will briefly discuss how the first images of the supermassive black holes M87 and Sgr A were obtained by the EHT collaboration. In particular, I will describe the theoretical aspects that have allowed us to model the dynamics of the plasma accreting onto the black hole and how such dynamics was used to generate synthetic black-hole images. I will also illustrate how the comparison between the theoretical images and the observations on a broad range of frequencies has allowed us to deduce the presence of supermassive black holes and to extract information about the accretion process. Finally, I will describe the lessons we have learned about strong-field gravity and alternatives to black holes.

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Track Classification: Gravitation