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Searching for massive black holes in globular clusters and ultra-compact dwarf galaxies with MAVIS

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Intermediate-mass black holes (IMBHs) are black holes with masses of a few hundred to a few 10^5 solar masses. They could exist in dwarf galaxies and globular clusters if the known scaling relations for supermassive black holes can be extended towards lower black hole masses. In addition, supermassive black holes have also been found in ultra-compact dwarf galaxies, the bigger siblings of globular clusters, making the existence of IMBHs more likely. While no compelling evidence for an IMBH has been found so far,MAVIS, with its superior spatial resolution, might be able to produce the first detection. In my talk I will present the current limits for IMBHs in globular clusters and discuss the chances that MAVIS has for the detection of massive black holes in globular clusters and ultra-compact dwarf galaxies.

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