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qUFOs as the key observational feature of SMRIs

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Recently, a previously quiescent nearby galactic nucleus, ASASSN-20qc, went to an outburst during which it has shown quasi-periodic ultra-fast outflows (qUFOs) with changing column density every cca 8 days. Different physical mechanisms have been proposed to explain such behaviour, with the most promising scenario being the smaller, probably intermediate-mass black hole, orbiting the primary supermassive black hole at the distance of about a hundred gravitational radii of the primary (see also the talk by Michal Zjacek). The secondary black hole is punching through the accretion flow launching fast outflowing blobs of gas ($\sim 0.3c$), which are causing repeating absorption events. We will examine the potential launching mechanisms of UFOs and show GRMHD simulation for the SMRI (Small Mass Ratio Inspiral) scenario. We will discuss the importance of observing UFOs and their variability in large sky surveys.

Primary author: SUKOVÁ, Petra (Astronomical Institute of the CAS)

Co-authors: TOMBESI, Francesco (Tor Vergata University of Rome); KARAS, Vladimír; PASHAM, Dheeraj (Kavli Institute for Astrophysics and Space Research, Massachusetts Institute of Technology, MA, USA); ZAJAČEK, Michal (Masaryk University)

Presenter: SUKOVÁ, Petra (Astronomical Institute of the CAS)

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