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## **X-ray blasts from two previously quiescent galaxies**

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A new type of exotic X-ray signal from supermassive black holes within galactic nuclei was recently discovered and called Quasi-Periodic Eruptions (QPEs). We have used the eROSITA telescope aboard SRG to systematically search for new QPEs and found two (doubling the sample of known sources) in the first year of operations. The new QPEs brought many new insights, since they were found in two previously quiescent galaxies, which was not the case for the two QPEs in the literature. This might suggest that no pre-existing accretion flow typical of active galactic nuclei is required to trigger QPEs. Currently, the most promising scenario for their origin is the presence of a second compact object orbiting the supermassive black hole, and data suggest it should be much smaller than the main body (even of the order of a stellar object). This is reminiscent of a channel of gravitational waves emission detectable by LISA in the future, called Extreme mass-ratio inspirals (EMRIs). We still do not know whether QPEs are indeed the electromagnetic counterpart of EMRIs. However, data incoming already over the next year will allow us to test this model by studying the quasi-period and the putative orbital evolution of the system. QPEs could then cover a fundamental role in the future of multi-messenger astrophysics over the next decades.

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