

The restless nature of AGN: 10 years later



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Review: Restless AGNs in the Legacy Survey of Space and Time

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The Vera C. Rubin Observatory Legacy Survey of Space and Time (LSST), aiming to begin in early 2025, will allow studies of the growing supermassive black holes (SMBHs) in active galactic nuclei (AGNs) on a truly massive scale. After a brief review of the LSST from an AGN perspective, I will describe the planned selection of tens of millions of AGNs using the LSST plus multiwavelength data, including with variability techniques. I will then highlight examples of exciting LSST AGN variability investigations including massive general AGN variability studies, photometric and spectroscopic reverberation mapping, microlensing of small-scale AGN structure, transient SMBH fueling events, and candidate binary SMBHs. I will end by briefly describing the LSST AGN Science Collaboration (AGN SC), currently composed of about 160 members spanning the globe. The AGN SC aims to lead many of the described investigations and is preparing for science with the petabyte deluge of LSST data.

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