

**RISE OF LSST - DETECTION OF OSCILLATIONS IN AGN
EMISSION LIGHT CURVES AT
DIFFERENT COSMOLOGICAL SCALES**

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Abstract. We present the first stage in the construction of a publicly available tool for modeling of active galactic nuclei (AGN) emission light curves, and for detection of oscillations in them (see Kovačević et al. 2018, 2019, 2020). This method is a result of our previous research of the time lags and oscillatory characteristics of optical light curves, which are obtained within our long-term monitoring program (up to 3 decades, see Shapovalova et al. 2001, 2004, 2008, 2010, 2012, 2013, 2017, 2019, Ilić et al. 2020).

Moreover, we introduce this tool in the context of the photometric reverberation mapping with the the Rubin Observatory Legacy Survey of Space and Time (LSST). As the dawn of the LSST is approaching, we expect the largest database of AGN light curves, covering a significant portion of the AGN population up to redshift ~ 7.0 . Perhaps this large and systematic dataset should enable us to constraint properties of oscillations in AGN light curves at different cosmological scales and thereby probe the properties of the emitting sources.

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