Monitoring and Analyzing Astronomical Transients in Real-Time

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Abstract: As LSST / Rubin survey is approaching its first light, it will produce a near real-time data stream {Juric et al. 2016} of variable astronomical objects, also called transient events - or coloquially 'alerts'. Information on astronomical objects can be combined from multiple active or passive data sources, legacy databases or "follow up" observations, predictive AI models or categorization and pattern matching. Based on our previous research {Vujčić & Jevremović 2020}, we update our review of various software tools used for working with real time astronomical data streams.

Keywords: astronomical transients, real time event processing, complex event processing

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