



Vera C. Rubin Observatory
Data Management

Bright Star Subtraction in the LSST Science Pipelines

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DMTN-270

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Abstract

This technote summarizes the bright star subtraction algorithm within the LSST Science Pipelines. One of the largest impediments to furthering a number of science goals, such as the ability to accurately characterize low surface brightness (LSB) flux, is the contamination caused by the extended wings of bright stars. These bright wings may be confused for other true astrophysical LSB light, or may erroneously enter into the background model leading to an incorrect background map. The tools described in this technote allow for the construction of an extended high fidelity bright star model with data processed by the LSST Science Pipelines. This extended bright star model may subsequently be subtracted from bright stars in the field of view, removing this wing contaminant flux prior to further downstream data processing.

Change Record

Version	Date	Description	Owner name
1	YYYY-MM-DD	Unreleased.	Lee Kelvin

Document source location: <https://github.com/lsst-dm/dmtn-270>

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A References

B Acronyms

Acronym	Description
DM	Data Management