Neven Caplar

Rubin Observatory / University of Washington
Department of Astronomy
Physics-Astronomy Bldg
Seattle, WA 98195-1700

Web: www.ncaplar.com
Email: ncaplar@uw.edu
ORCid: 0000-0003-3287-5250
Github: nevencaplar

Work Experience

Sep 2022 – Present, Associate Director for LINCC Commissioning, University of Washington

Lead the LSDB project, enabling scalable cross-matching and analysis of petabyte-scale astronomical datasets.

Coordinate cross-institutional efforts with the Space Telescope Science Institute, IPAC, Canadian Astronomy Data Centre, and CDS Strasbourg to provide spatially sharded, Parquet-based catalogs.

Manage a team of six software engineers and one scientist; responsibilities include strategic planning, sprint leadership, and communication with Principal Investigators.

Sep 2022 – Present, Project Scientist, Rubin Observatory

Developed scripts and code for assessing the quality of image differencing algorithms and construction of lightcurves.

Sep 2017 - Aug 2022, Associate Professional Specialist, Princeton University

Designed algorithms for two-dimensional point spread function modeling for the Prime Focus Spectrograph (Subaru Telescope).

Mentored undergraduate and graduate students (Caltech, Princeton) on AGN variability projects and instrument calibration challenges.

Education

Ph.D., Science, Swiss Federal Institute of Technology, Zurich, Switzerland 2017

MSc, Physics, University of Zagreb, Zagreb, Croatia, 2010

Research

Main Interests: Large datasets analysis, software in astronomy, time-domain, stochastic variability.
Publications: 19 papers (7 first-author), 6 conference proceedings (3 first author), 1451 citations

Skills and Tools

Programming: Python (scientific stack: JAX, DASK, Astropy), LSST Science Pipelines, Github

Expertise: Scalable data reduction, survey calibration, spectroscopy

Other: Wolfram Mathematica, Zemax OpticStudio