



AI/ML in Astronomy

Synoptic Sky Survey

What is Synoptic Sky Survey?

A synoptic survey in astronomy is a comprehensive study that observes and catalogs a large part of the sky



Telescopes used for Synoptic Sky Survey



1. Pan-STARRS (Panoramic Survey Telescope and Rapid Response System)
2. Sloan Digital Sky Survey (SDSS)
3. Zwicky Transient Facility (ZTF)
4. Large Synoptic Survey Telescope (LSST)

Data Collected

PAN-STARRS collect about 2PB of data during its operation
LSST is expected to collect 20TB each night

Survey and categorize Deep Sky Objects

The background of the slide is a collage of various deep sky objects. In the top left, there's a blue nebula. In the top center, a blue and white nebula. In the top right, a dense field of stars. In the bottom left, a reddish nebula. In the bottom center, a bright star. In the bottom right, a galaxy.

Nebulae
Galaxies
Clusters
Supernovae
Kilonovae