New Astronomy Library

Potential mentors: Please, fill your name in here!

It will require knowledge of C++, data science, image processing and a bit of basic science/astronomy.

Background

C++ is lacking a potential astronomical library, with this project boost community can help astronomers to make complex astronomical calculations simple and faster using C++. This library will have functionality aimed at professional and amateur astronomers, astrophysicists, but may be useful to anyone developing astronomy software.

This library will help astronomers to analyse and gather information from observation data.

GSoC Project Proposal

This library will provide some fundamental class required in astronomy.

- Basic astronomical functions
- Implement classes for celestial coordinate system
- Classes for light curves of variable stars
- Documentation

Expansion of the library

Functionalities mentioned below can be implemented

- Various functionality for spectroscopy.
- Read and plot catalogues from text files.
- Astrometry
- Photometry