

Frontiers of Discovery

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Outline

- Voluntary after-school activity in youth clubs.
- Children access subset of the Pan-STARRS database to study variable stars and asteroids.
- Graduated program, but even beginners can become world's expert in a particular star or asteroid.

Audience

- Boys & Girls clubs of America
- Computer Clubhouses
- Other similar organizations

Activities

- Guided introduction to photometry and databases
- Prediction of behavior of variable star
- Distance, color and physics of the star
- Tracking an asteroid
- Making follow up observations, such as Las Cumbres

Database

- Will set up dedicated database server for FoD
- Several small patches of sky
- Possibly use parts of calibration fields
- Images will be available for analysis

Finding Mentors

- Astronomy/physics graduate students
 - Amateur astronomers (AAVSO)
 - Small-college instructors
 - Retired scientists & engineers.
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- More advanced students will be working with remote mentors.

Plan

- Year 1: Set up database and first projects
- Year 2: Experiment using Hawaii Boys & Girls clubs, and develop more projects
- Year 3: Expand to 10 mainland sites with trained mentors
- Year 4: Expand to 200 sites

Status (August 2006)

- NSF proposal submitted June 2006 (\$1.8m)
- Hope to start early 2007

- PS1 has achieved first light June 2006
- Full camera due end 2006
- Database developed early 2007