Pi of the Sky robotic observatories in Chile and Spain

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Pi of the Sky
Inspiration

- Project inspired by B. Paczynski
- Continuous observation of a large area of the sky
- 10s time resolution
- On-line flash recognition algorithms, independent on GCN satellites

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Pi of the Sky
Team

- Center for Theoretical Physics, PAS
- National Centre for Nuclear Research
  (formerly The Andrzej Soltan Institute for Nuclear Studies)
- Faculty of Physics at the University of Warsaw
- Space Research Centre PAS
- Institute of Electronic Systems, Warsaw

University of Technology

Cooperation: Creotech Instruments S.A.

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Research program

Studies of variable objects on time scales from seconds to months:

- Searching for optical counterparts of Gamma Ray Bursts (Optical observations before and during GRB - large field of view, autonomous detection of flashes)
- Observations and tracking satellites and space debris
- Observations of other variables phenomena in the sky:
  - Search for novae and supernova explosions, flare stars explosions
  - Identification of variable stars with short periods of volatility
  - Monitoring of interesting objects
  - Monitoring of all visible sky

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Pi of the Sky North
DG CVn light curve from Pi of the Sky
Pi of the Sky South
Observatory in San Pedro de Atacama, Chile
Tests and improvements:
Improving Luiza functionality

- Analysis of WZ Sgr Cepheid light curve

Based on collected sample of ~3300 images (on two cameras)

V filter                    R filter                    R-V