Watcher's Photometry

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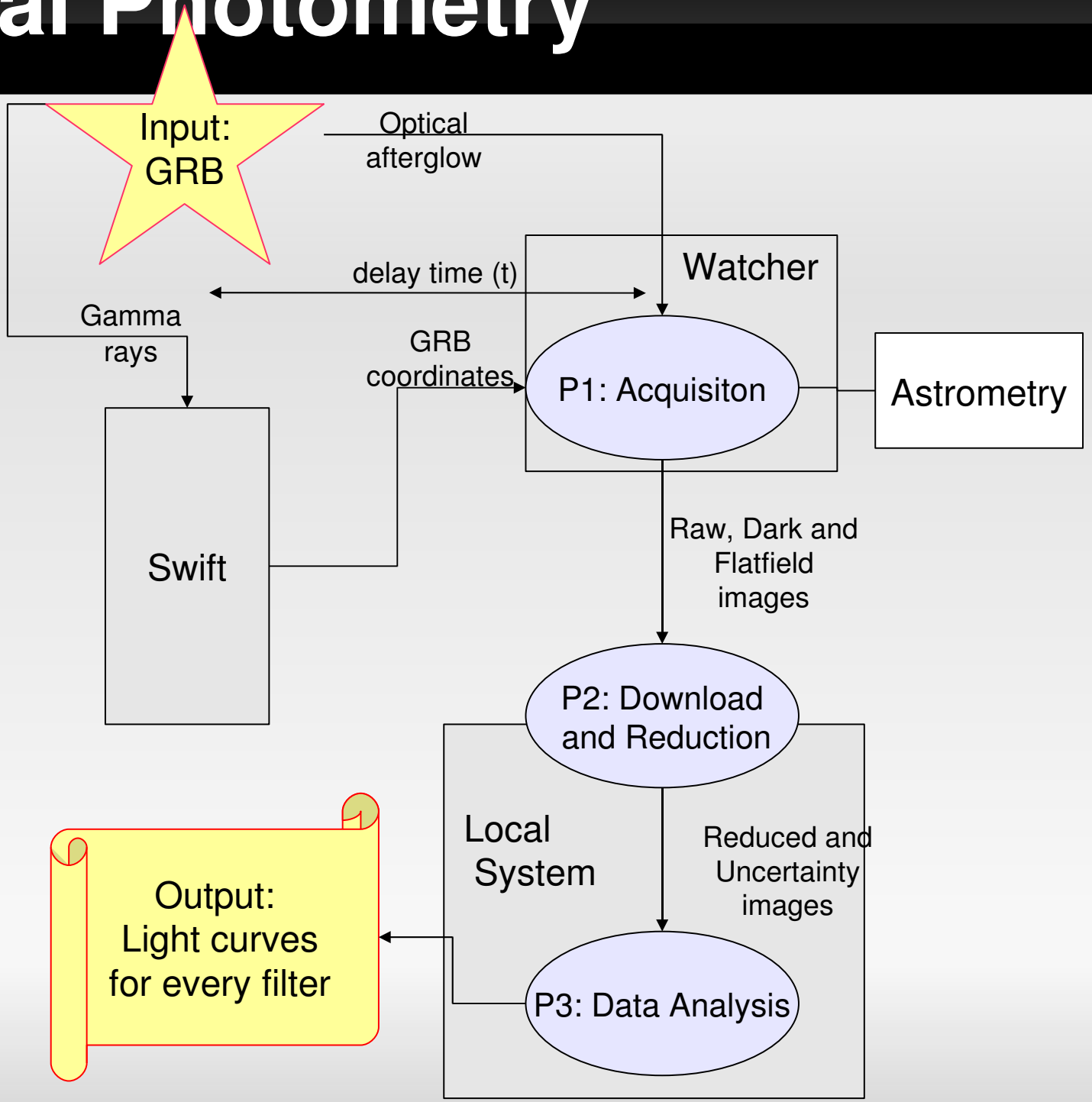
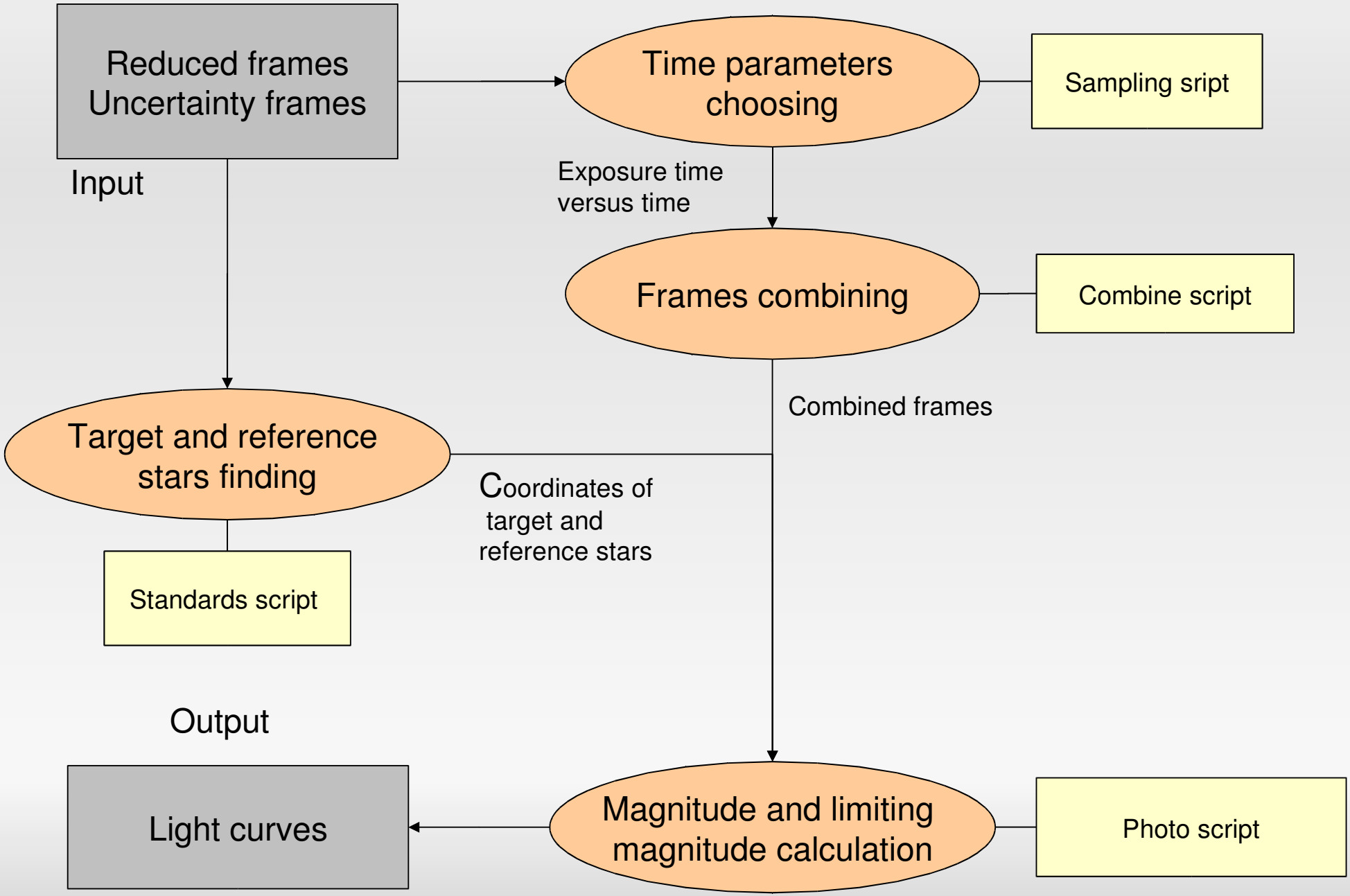
Outline

- Pipeline
- Instrumental measurement
- Magnitude calculation
- Limitng Magnitude

General Photometry



Light curves



#/bin/bash

To produce the Input.txt
InputGer

To download data
Download

To sort data by folders integration time and filter
Datalocate

#To do data reduction
GeneralReduction

#To choose the temporal sampling
Sampling #(if we want to combine)
NoSampling #(if we dont want to combine)

#To combine frames (It locates frames only if we used “NoSampling”)
Combine

#To choose "standars"
Standards

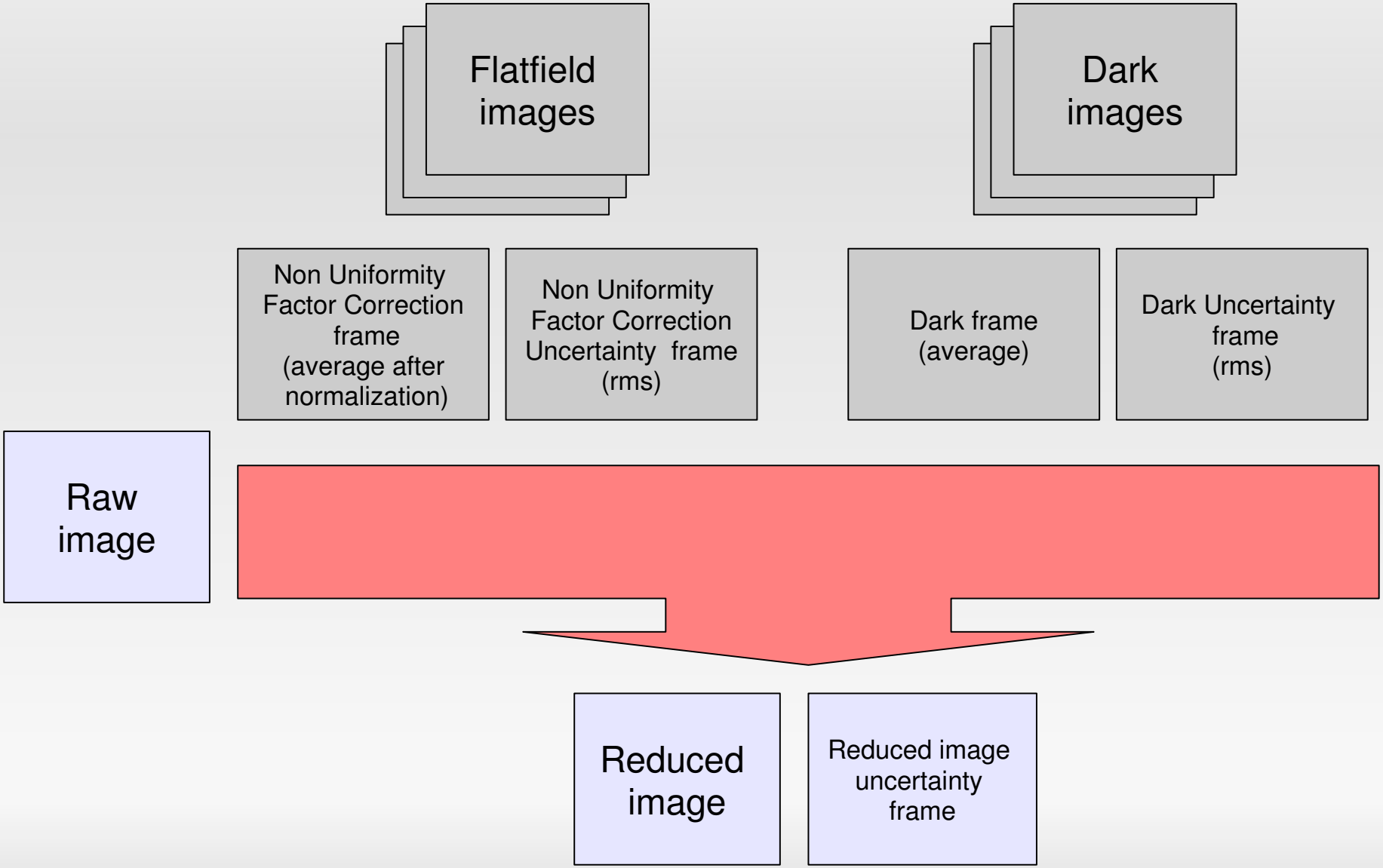
#To do photometry with Rains
Photo2 #Photo2phot to use Aperture photometry

#To calculare the magnitude
CalculateMag

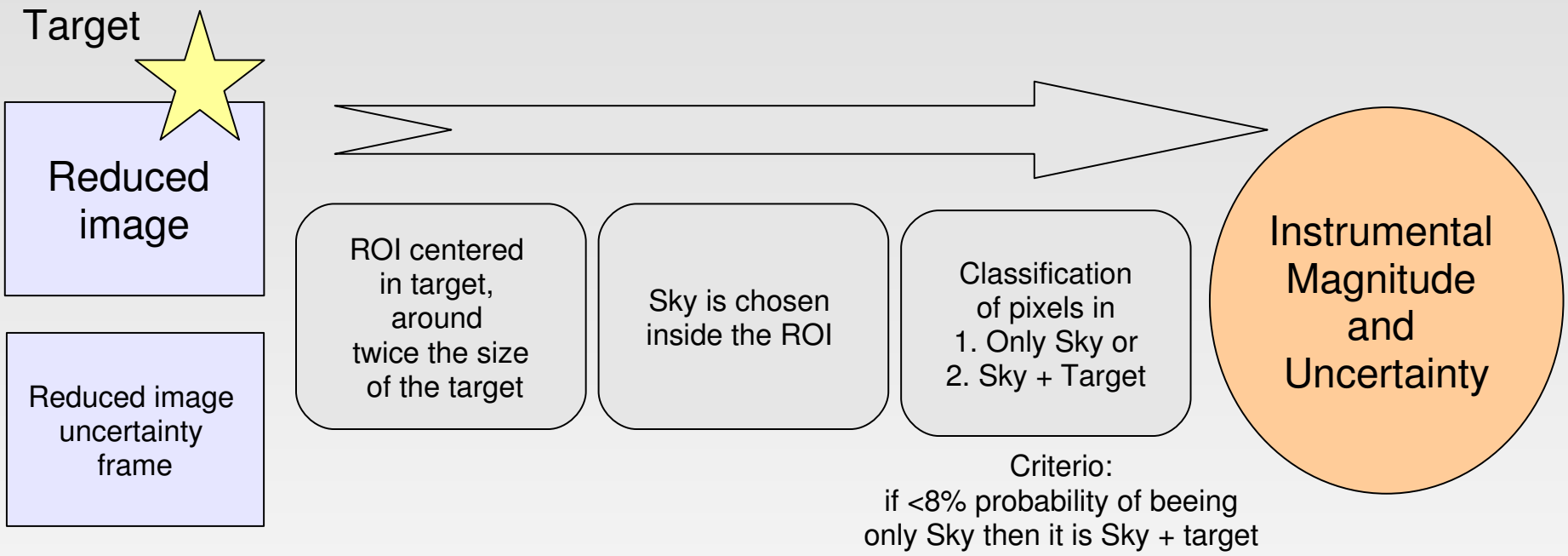
#To report and to do figures
Report2
Figures

script

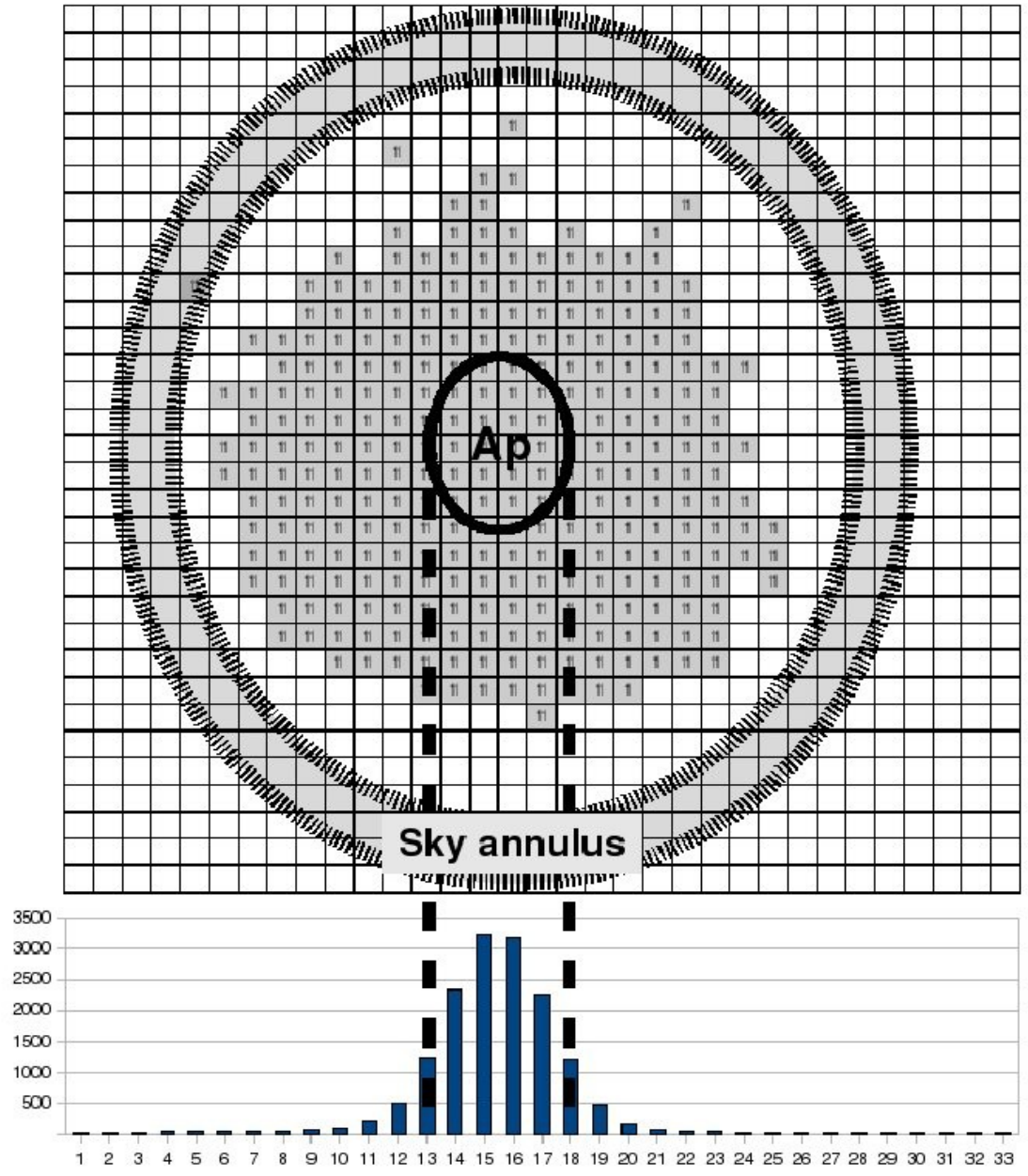
Reduction


Flatfield images
Dark images
Non Uniformity Factor Correction frame (average after normalization)
Non Uniformity Factor Correction Uncertainty frame (rms)
Dark frame (average)
Dark Uncertainty frame (rms)
Raw image
Reduced image
Reduced image uncertainty frame

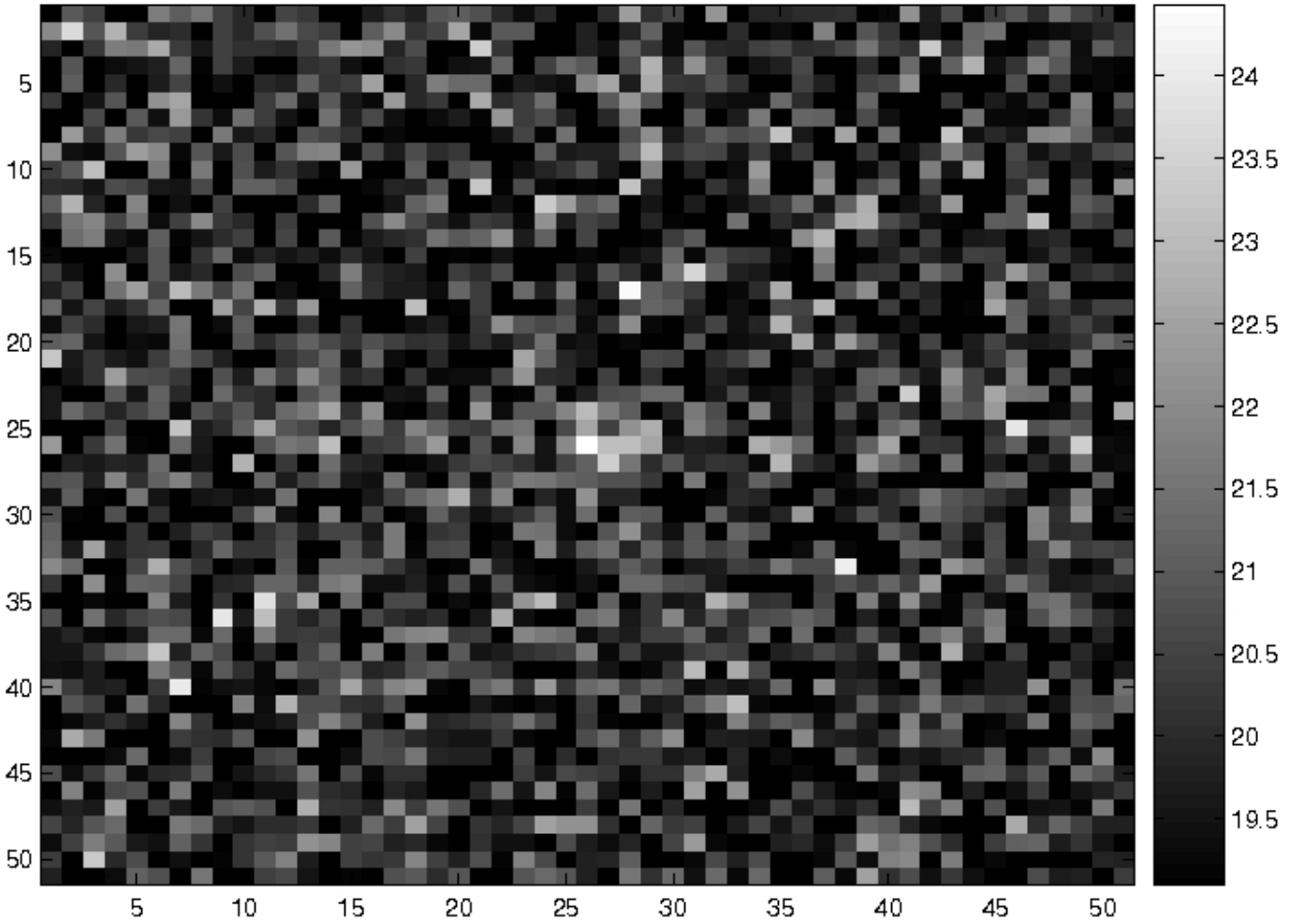
Measurement step



Watcher procedure vs AP

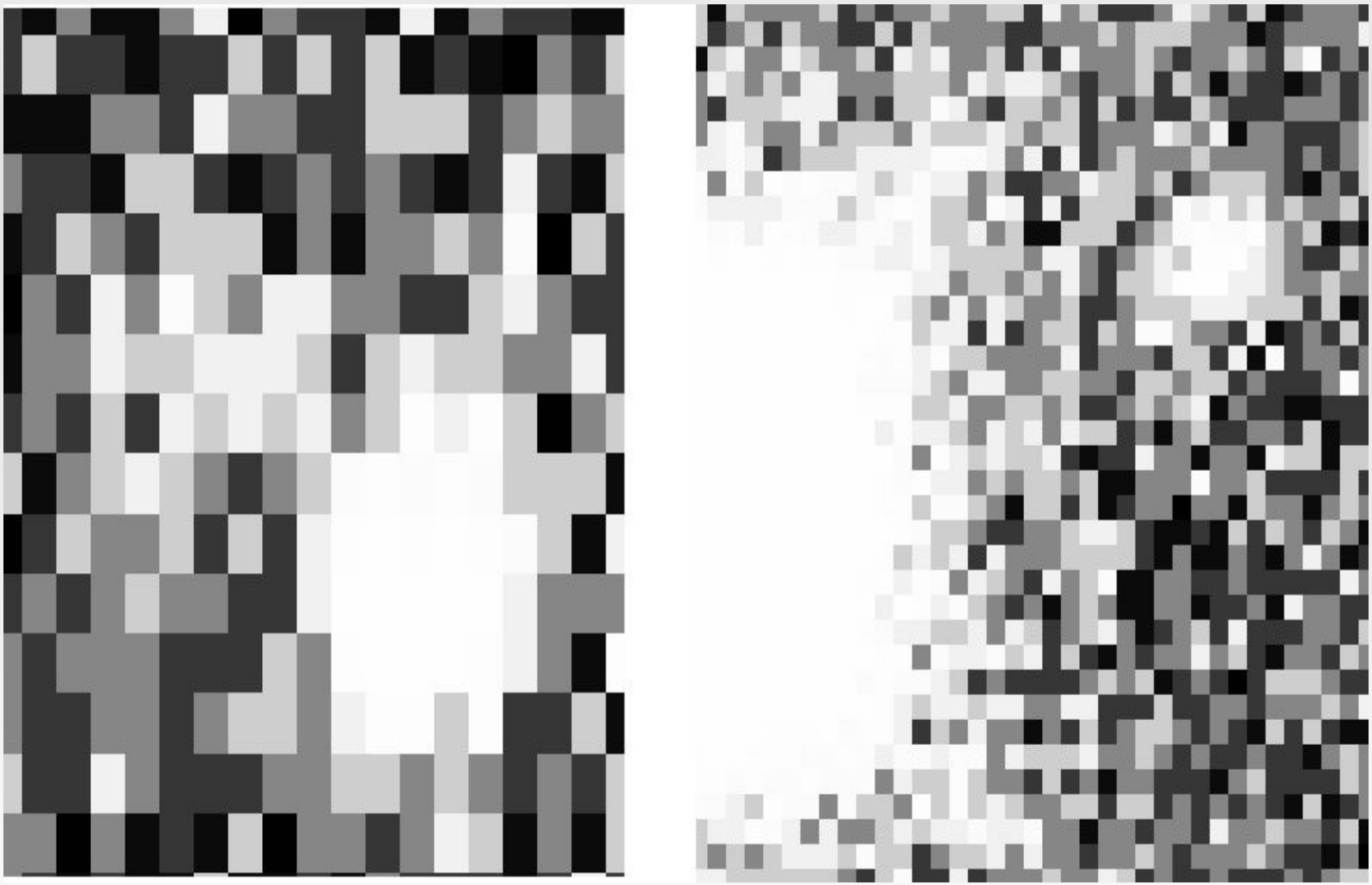


Results



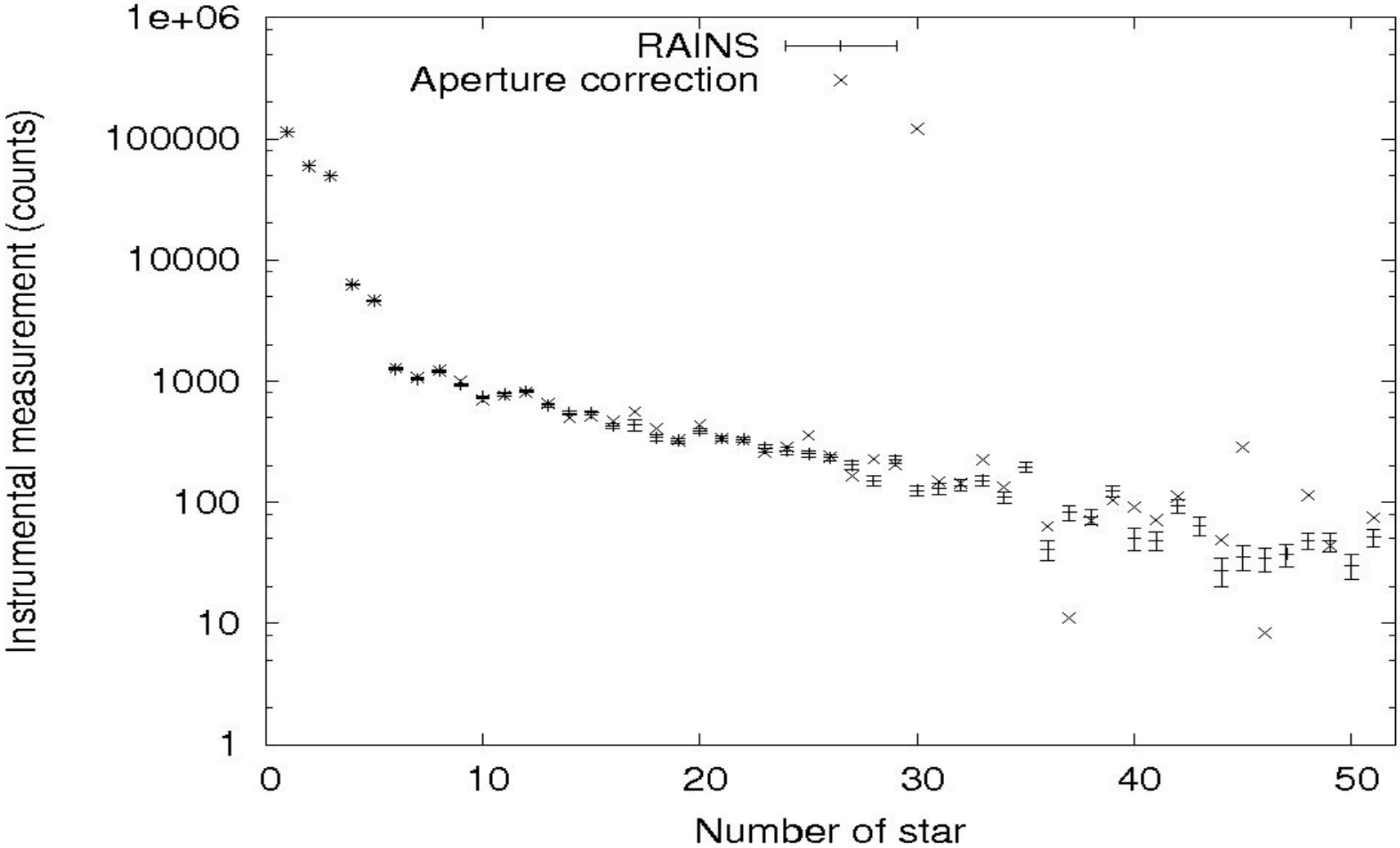
SNR=3.8, V=18.2±0.3 mag.

Results



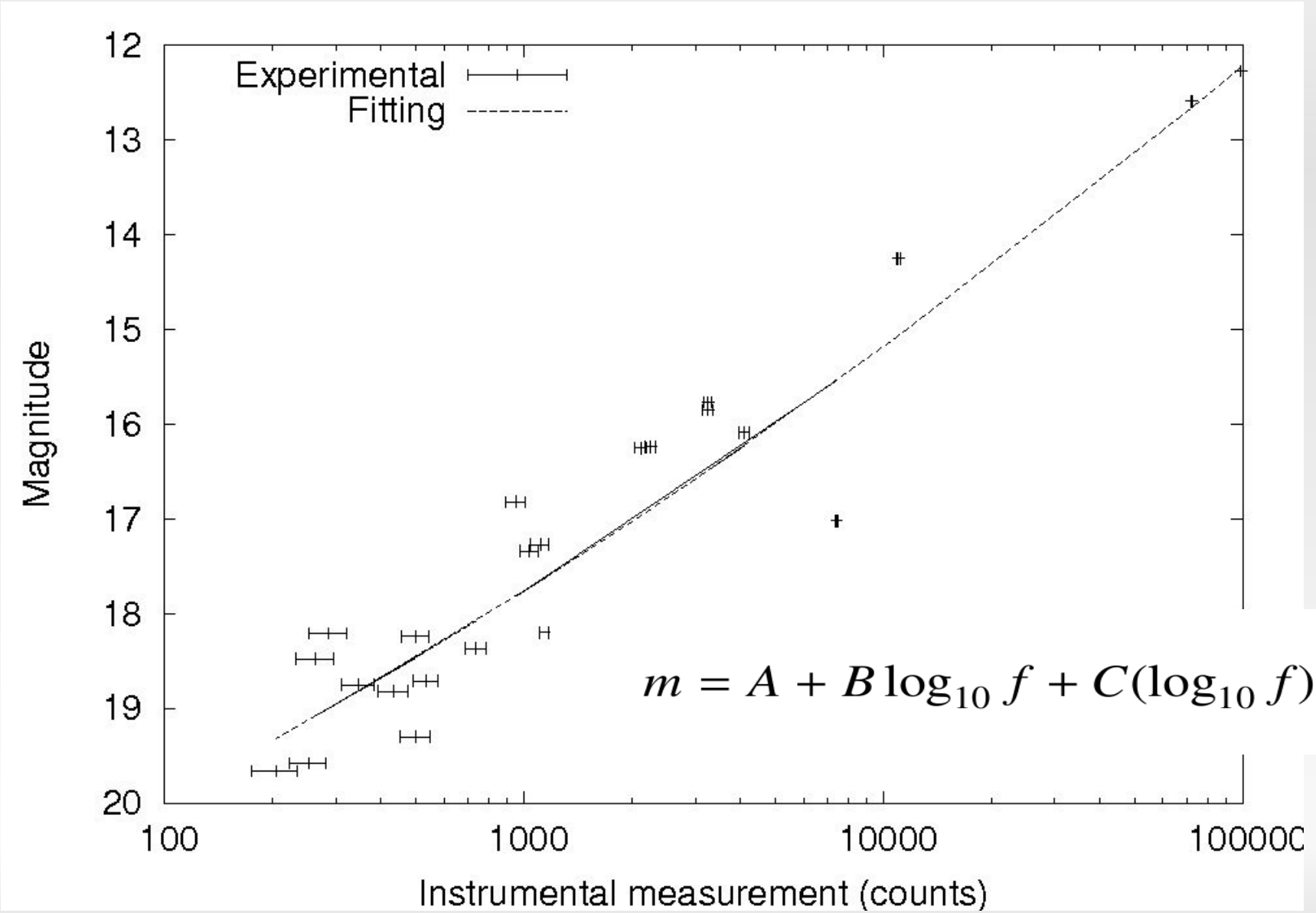
Two cases where aperture photometry fails.

Results

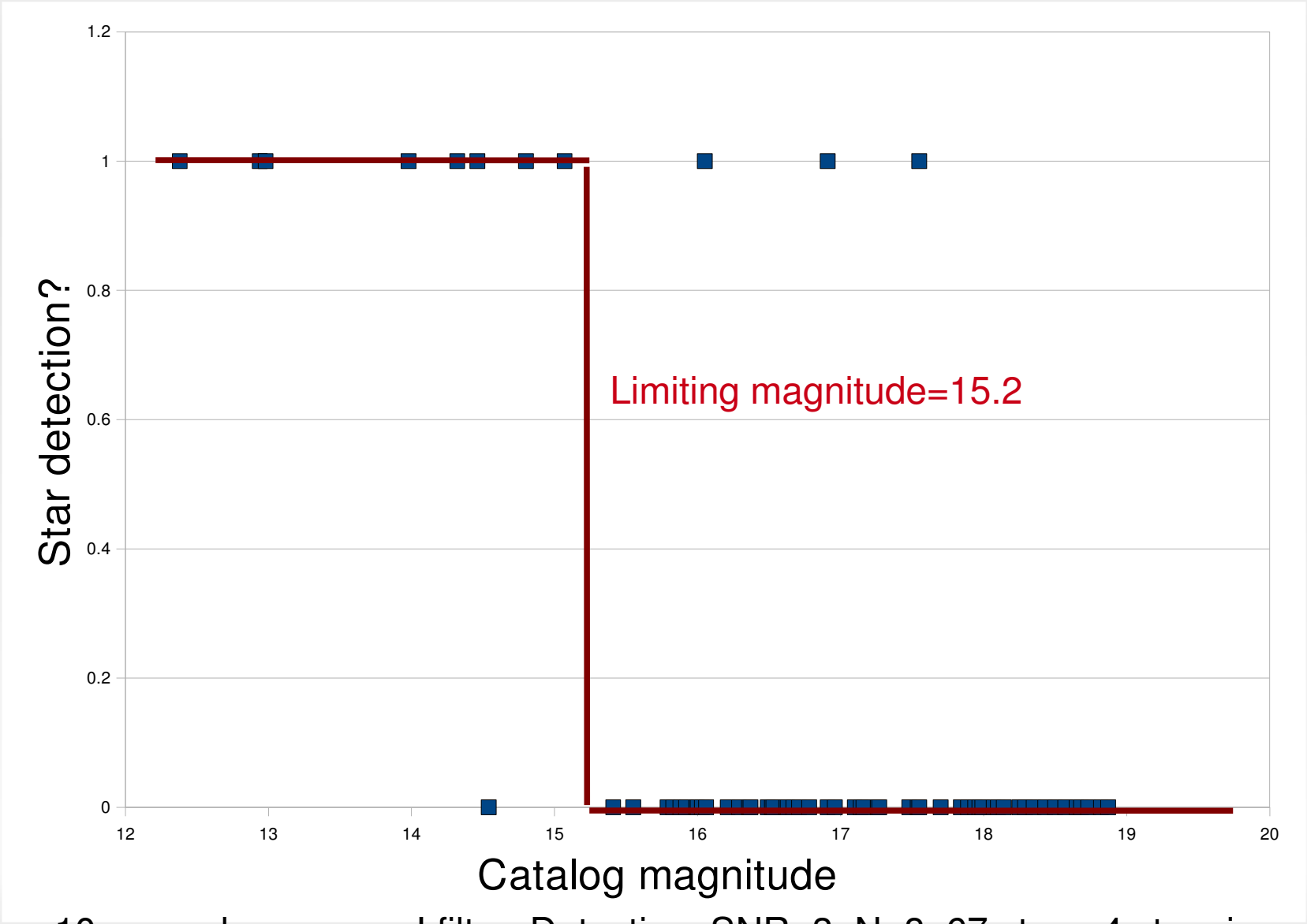


Original (straight line) and corrected (scatter dots with error bars) instrumental measurement.

Magnitude Calculation



Limiting Magnitude Calculation



10 second exposure, I filter. Detection: SNR>3, N>8. 67 stars. 4 stars inconsistent with the limiting magnitude.

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