

An overview of period finding

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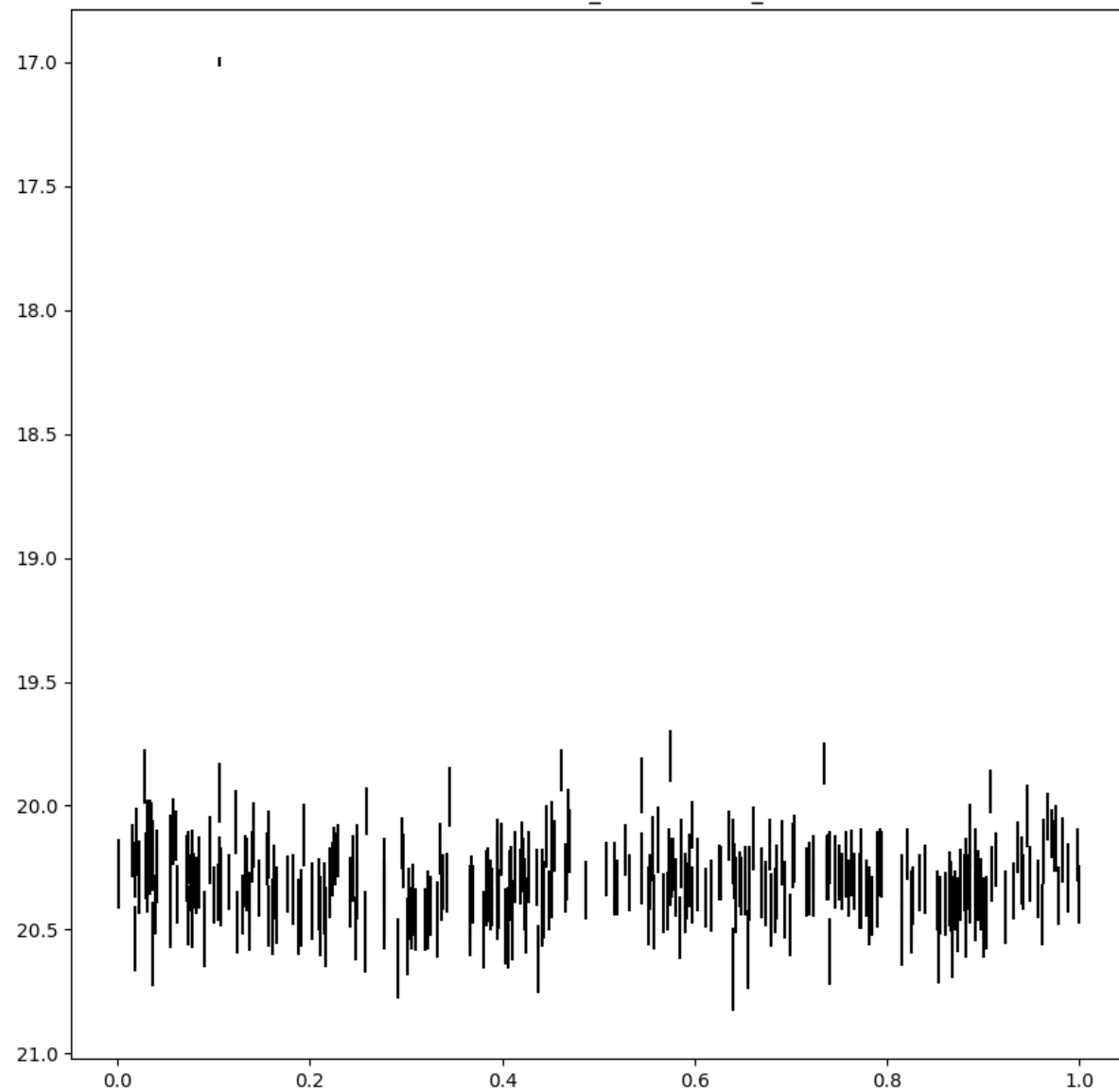
Many different algorithms

- Lomb-scargle (good for sinusoids)
- Box Least Squares (good for eclipses)
- Analysis of Variance (good for general waveforms)
- Conditional entropy (good for speed)

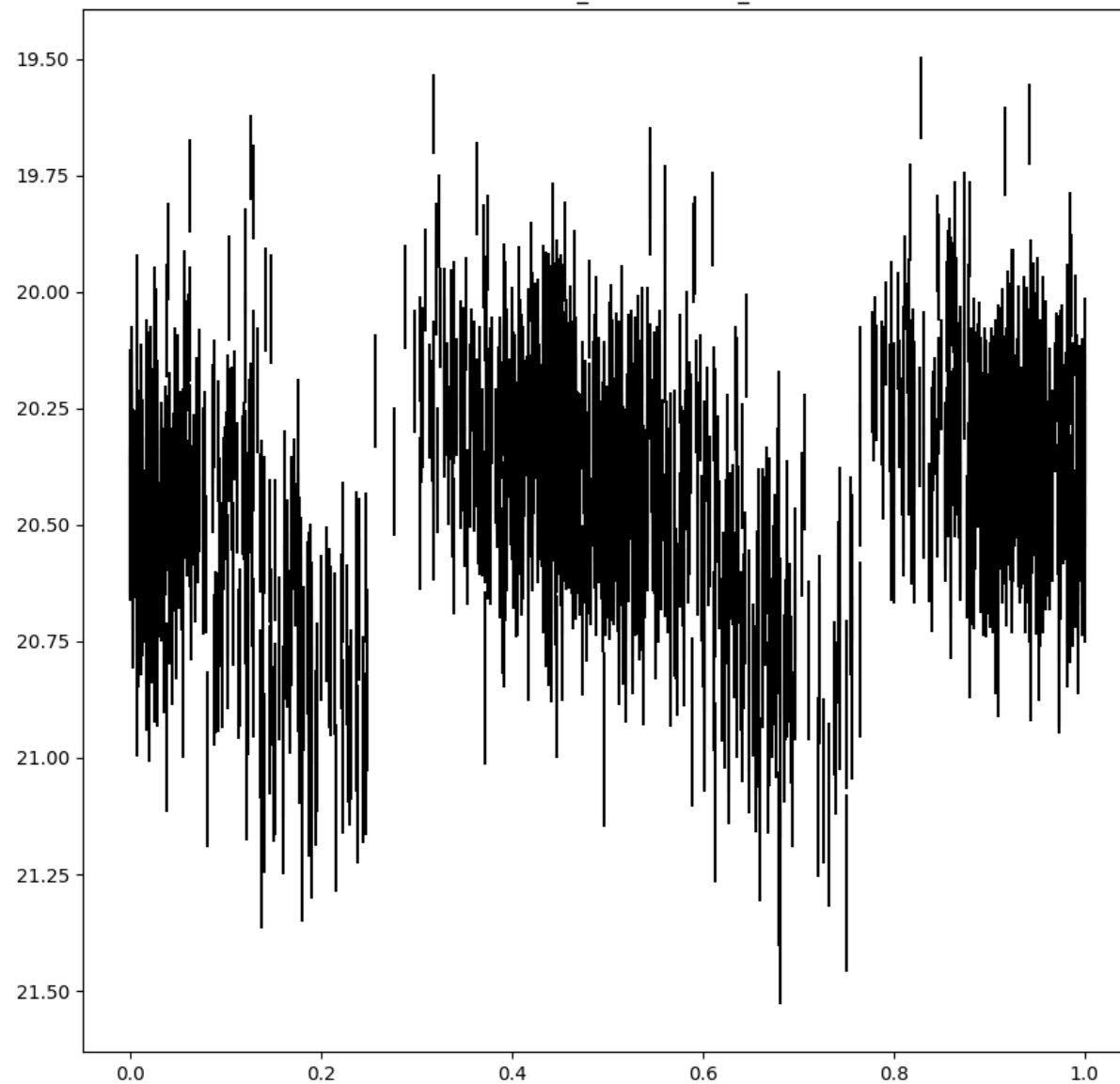
Problems to cope with

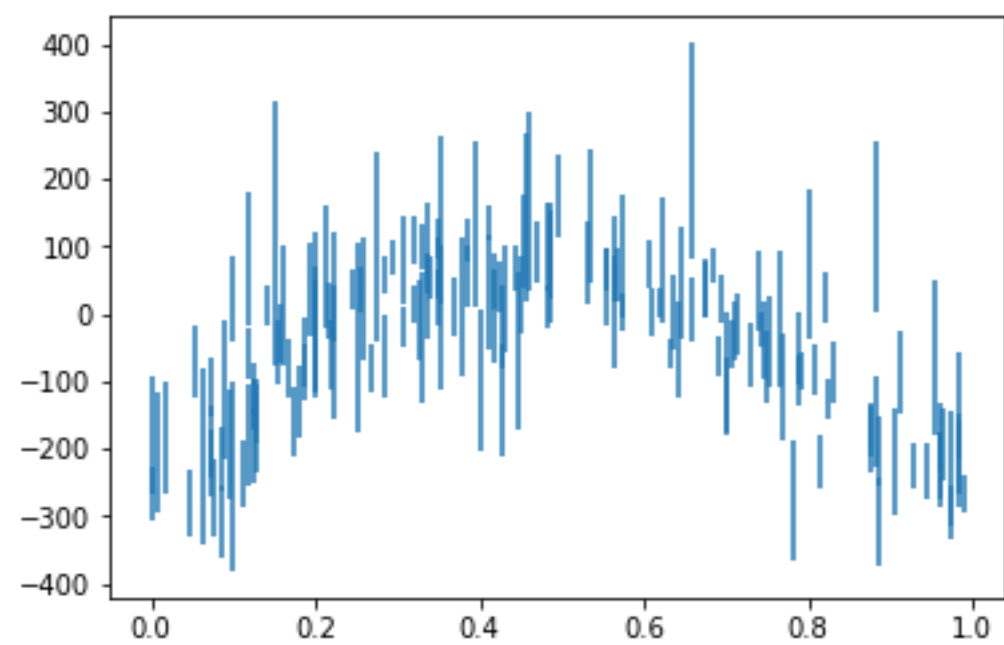
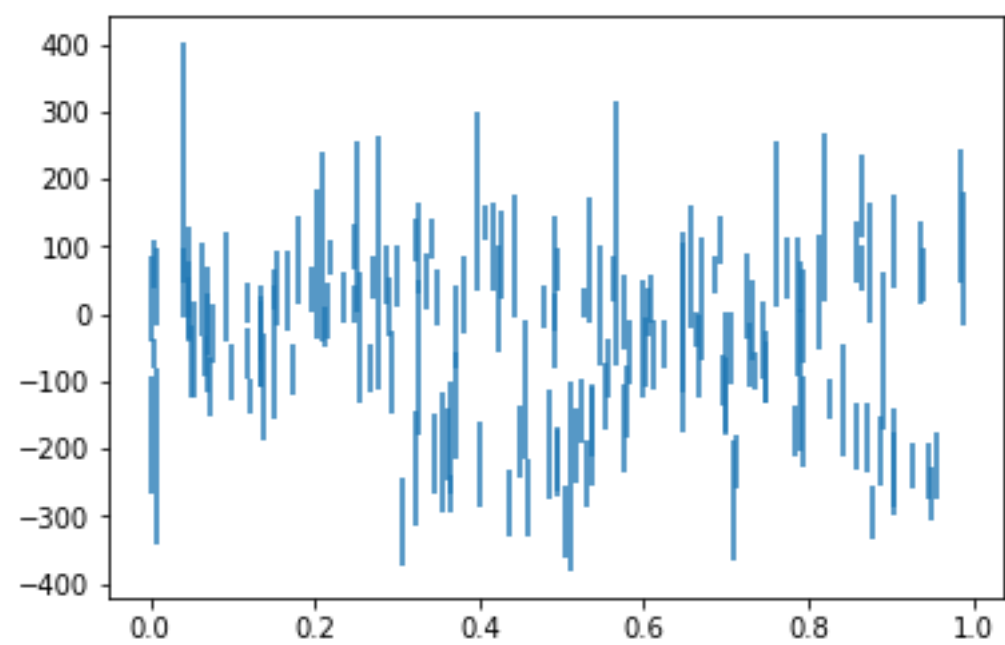
- Outliers
- Window function
- False alarms
- Coherence timescales

0.0016581097560875548_191.0793338_17.9084091



0.9956360954360656_278.0346467_45.0691421





The strengths and limitations of period finding

- A great first step in classifying objects, however, contains very limited information
- Exceptionally powerful for finding rare short period objects
- Computationally costly