## small project

- get (simulated) data [x<sub>i</sub>,y<sub>i</sub>,σ<sub>i</sub>] from here:
  <a href="http://mpej.unige.ch/~kunz/poly\_chipp.dat.gz">http://mpej.unige.ch/~kunz/poly\_chipp.dat.gz</a>
- model:  $y(x)=a_0+a_1x+a_2x^2$
- y<sub>i</sub> are Gaussian around y(x<sub>i</sub>) with error σ<sub>i</sub>
- write a little MCMC program to find parameters and correlations
- check by computing (semi-analytically)  $d\chi^2/da_i = 0$
- (if motivated, can try to do it for SN-Ia data, but that needs an integration for y(x) talk to me for that project.)