

Coding in advance of the Mar 5, 2018 class

The description here is pretty simple: perform the analysis described in detail in Lecture 6 on the whole data set of 118 points (data given on website). For this analysis, assume that the rotation speed v_{rot} is measured with zero uncertainty. If you have time, the tasks you would perform include getting the $\Delta\chi^2 < 2.3$ and $\Delta\chi^2 < 6.18$ regions in $\theta - b$ space, integrating in those regions to determine whether they contain the expected fractions of the total probability, producing the marginalized one-parameter posteriors $P(\theta)$ and $P(b)$, determining how the two-dimensional peak values of θ and b compare with the peaks in the one-dimensional distributions, and determining the minimum χ^2 and comparing it with the number of degrees of freedom.

Good luck!