

Result comparison

ABSTRACT

Comparing the results of fitting data of different models

1. INTRODUCTION

Data for this result from grb190114873. We choose two most light NaI cintillation detectors n3 , n4 and one most light BGO cintillation detectors b0. The major applications is python and xspec. The main process can be divided into three parts. First,we use python to generate a certain period of time file . Then we import the file from this time period into xspec.After a specific analysis, we will get the results as shown.In this picture we selected the time period from 1.9 to 3.99 seconds. Why should I choose this time period ? We want to repeat the results from R . Ruffini article ' Self-similarity and power-laws in GRB 190114C'. He think inthis time period includes three major events: the formation of the BH , the onset of the GeV emission and the onset of the ultra-relativistic prompt emission (UPE), which extends all the way up to $t = 3.99$ s. He perform an in depth time-resolved spectral analysis on the entire UPE with the corresponding determination of the spectra best fit by a cut-off power-law and a black body (CPL+BB) model.We also use this model and the results are as follows.

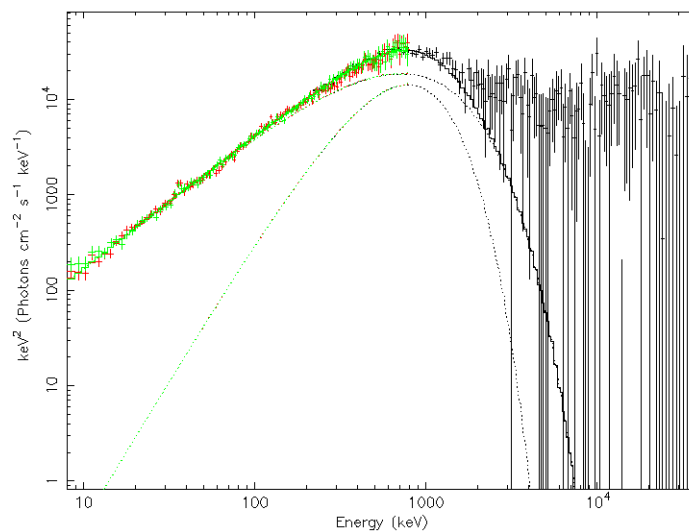


Figure 1. Three lines come from three modelsCPL+BBCutoffpower,Blackbody