

P15 Markov chain Monte-Carlo modeling of FSRQ SED

Monday, 19 November 2018 17:29 (1 minute)

“Blazars are one type of active galactic nuclei (AGN) whose jet is directed toward us, and especially, Flat Spectrum Radio Quasars (FSRQs) are the particularly bright blazars. We can research the evolution of super massive black hole about its jet and accretion disk. By modeling spectral energy distributions (SEDs) of FSRQs, physical parameters of relativistic jets can be estimated to the mechanism of jet ejection. SEDs of FSRQ are usually modeled by synchrotron self Compton model plus external Compton model. However, the model calculation takes much time and thus parameter estimation has some problems. Therefore, in order to calculate the model as fast as possible, we referred to the approximation formula of Finke et al. 2016. Fast calculation enables us to perform Markov chain Monte-Carlo (MCMC), which is a powerful approach to constrain model parameters.

We applied our MCMC modeling to a famous FSRQ 3C279 which shows a change of SED around flares as shown in Hayashida et al. 2015. In this poster, we report emission model of FSRQs, calculation technique and some preliminary result of how changing jets parameters.”

Presenter: Mr HIRADE, Naoyoshi (Hiroshima University)

Session Classification: Poster Short Presentations