

# Cover Letter

**So Chigusa**

Dear Prof. Soreike Posdoc,

I would like to inquire whether there is a postdoctoral position at your high energy theory group starting at Fall 2020. I am currently a graduate student at University of Tokyo and going to finish my Ph.D. in March 2020.

I am an energetic researcher who enjoys working with people on a broad range of topics. So far, I have been working on the several aspects of the phenomenology of the standard model and beyond. Firstly, I studied the stability of the electroweak vacuum and gave a proper calculation framework of the next-to-leading order decay rate of the vacuum. Secondly, I proposed and/or analyzed several clever methods to search for the supersymmetric partners of gauge bosons using future hadron colliders and evaluated their ability to discover a new particle and to measure its properties. I also considered the cosmological and experimental constraints on models with flavor symmetry and grand unified theories. In the future, I want to keep seeking a trace of the new physics using the rich knowleadge of the phenomenology I have acuiired in my Ph.D. course.

So I wish to be a postdoctoral fellow at your group and continue my research. I have already asked recommendation letters to the following researchers which will be directly sent to you:

- Dr. Takeo Moroi (Department of Physics, University of Tokyo)
- Dr. Koichi Hamaguchi (Department of Physics, University of Tokyo)
- Dr. Kazunori Nakayama (Department of Physics, University of Tokyo)

Please find attatched my C.V., research statement, and list of publications.

I am looking forward to hearing from you.

Sincerely yours,

So Chigusa