

## **Majoron as the QCD axion in a radiative seesaw model**

*Friday, 16 February 2018 11:20 (20 minutes)*

The Standard Model of particle physics can explain the phenomena up to TeV scale. However, it has some serious problems. We propose the model which solves many of them. Our model is the simple combination of the color octet radiative seesaw model and the QCD axion model. It identifies the Lepton number breaking as the PQ number's one, and the mediator in the radiative seesaw model as the colored fermion in the QCD axion model. In this talk, we explain the model and the quantitative evaluation of it. This talk is based on the paper (Phys. Rev. D 96, 075039) with Ernest Ma (University of California) and Koji Tsumura (Kyoto University).

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**Session Classification:** Short Talks