

## The isospin breaking effect on baryons with $N_f=2$ domain wall fermions

**Presenter: Takumi Doi** (RIKEN BNL Research Center)

*Takumi Doi, Tom Blum, Masashi Hayakawa, Taku Izubuchi, Norikazu Yamada*

Abstract: We present the study of the isospin breaking effect on baryon masses such as proton/neutron mass difference. We use the two-flavor dynamical domain wall QCD configurations combined with quenched QED configurations and discuss the interplay of the electromagnetic splitting and the effect of up and down quark mass difference.