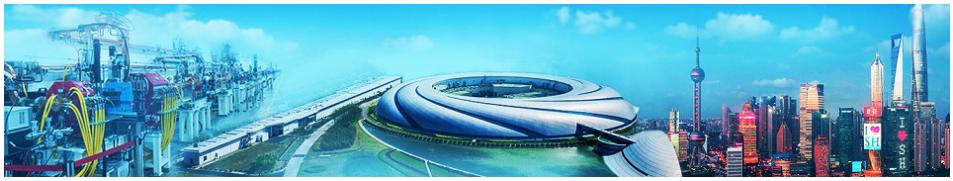

Contribution ID: **46** Type: **not specified**

Research on wakefield suppression of two bunch operation mode in X-band disk-loaded accelerating structure

Thursday 7 June 2018 11:00 (25 minutes)

FEL R&D is being promoted dramatically as a light source technology and gradually develop into compact facility. FEL facility is usually operated with single bunch and has a high beam quality. In order to increase the average current intensity further, two bunch operation mode or multi-bunch operation mode is proposed to be applied to FEL facilities. Wakefield effect of multi-bunch operation mode is a factor resulting in beam instability, so research should be forced on wakefield principle and suppression. The waveguide damped structure is satisfied with the requirements, but it is more complex than disk-loaded structure. In this report, we study the wakefield suppression in disk-loaded structure and obtain preliminary wakefield effect results based on Gaussian detuning principle in disk-loaded structure to verify the realization of two bunch operation mode and several bunches operation mode.

Author: HUANG, Xiaoxia (SINAP)

Presenter: HUANG, Xiaoxia (SINAP)

Session Classification: RF Design