## WP6 FNAL µ-campus

•After the study of the CRV neutron shield, it has been discussed the possibility to extend the use of MCNP6 to other components of the experiment.

•Particular attention will thus be given to the problem of importing the geometry into MCNP6 starting from the format with which it is presently shared among the other codes already in use.

An attempt will be made (probably in collaboration with the HZDR institute) to create an algorithm to automatically convert the most common structure, like G4Box, G4Tubs etc., in a format suitable for other codes like MCNP6 and FLUKA.

•As a preliminary test the model of the production target has been imported into MCNP6 and it has been used estimate the power deposed on it by the proton beam (target heating) Valerio Giusti NEWS Annual General Meeting Pisa, November 4-5, 2019

### TDR production target



#### **TDR** production target



#### TDR production target



## TDR production target – Proton yield



# TDR production target – Mu<sup>-</sup> yield



# TDR production target – Pi<sup>-</sup> yield



### TDR production target – Neutron yield



### **Recent achievements**

•The geometry of the current target design, Hayman2, has been implemented with MCNP6 and it will be used to re-evaluate the above shown figures.

