Astrophysics impacts/needs of neutron induced reactions and related topic

Alberto Mengoni¹

¹INFN, Bologna and CERN, Geneva

During CERN's accelerator shutdown (2019-2021), n_TOF received a significant upgrade, including a new target-moderator assembly, refurbished beam lines, experimental areas, and the creation of the NEAR Station. This new station offers exciting possibilities for neutron activation studies and novel physics research. This presentation will provide an overview of the n_TOF facility and its activities at CERN, with a particular emphasis on recent groundbreaking experiments and exciting plans for future endeavors.

 $[1]\;\; A.\; Goodscientist, Annals of Nuclear Energy <math display="inline">{\bf 33},\, 700000 \;\; (2099).$

[2] A. Verygoodscientist, Annals of Nuclear Physics 33, 90000 (3099).