

2<sup>nd</sup> International Conference on

# PHYSICS

August 28-30, 2017 Brussels, Belgium

## $\pi$ production in nuclear collisions at $P_{\text{lab}} = 1-400 \text{ GeV}/c$

**B Ganhuyag<sup>1</sup> and V V Uzhinskiy<sup>2</sup>**<sup>1</sup>Mongolian Academy of Sciences, Mongolia<sup>2</sup>Joint Institute for Nuclear Research, Russia

The model parameters are found and corresponding changes of the code are proposed that allow one to describe satisfactorily according to the author point of view the  $np$ -collisions under the study. In particular, it allows description of meson rapidity and transverse momentum distributions. The modified FRITIOF model reproduces qualitatively also the relations between the topological cross-sections of the reactions. The changes are in the treatment of character of low mass string decay and the probability of the string creation. The model can be used at a description of diffraction dissociation and at analysis of nucleus-nucleus collisions both at intermediate and high energies. The results of neutron-neutron and nucleon-nucleon interactions were then constructed. The dependence of the mean pion multiplicity in proton-nucleus and central nuclear collisions are studied as a function of the collision energy and the nucleus mass number. The model shows good agreement mesons.

ganhuyagb@yahoo.com