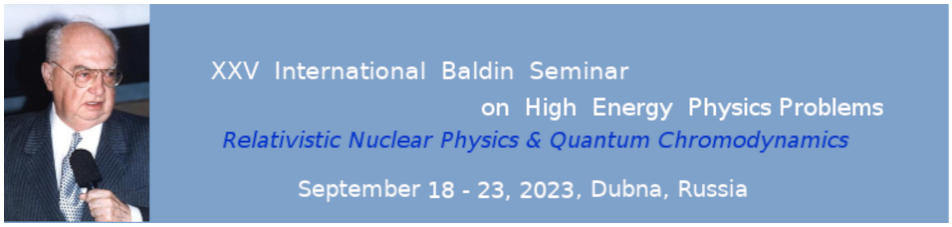

Contribution ID: **79** Type: **not specified**

STUDY OF THE REACTION $NP \to NP\pi^+\pi^-$ AT THE MOMENTUM OF INCIDENT NEUTRON P_0 >3 GEV/c.

Friday, 22 September 2023 17:30 (20 minutes)

The reactions $np \to np\pi^+\pi^-$ was studied at the momenta of incident
neutrons P_0=3.83 and 5.20 GeV/c. There were calculated the contributions of various
diagrams (both of one-baryon and one-pion exchages) into the cross-section at the
momenta from the threshold up to 12 GeV/c. It was shown that the main contributions into
the reaction $np \to np\pi^+\pi^-$ at the momenta above P_0 >3 GEV/c
are provided by the diagrams of the reggeized π~exchange model (OPER).
The reeaction $np \to np\Delta^{++}\Delta^-$ was selected to study the spin
effect for Δ-resonance decay. It was shown that the satisfactory description of
spin density matrix $[\rho_{ij}]$ could be provided taking into account the diagram
of ρ-meson exchange. The reaction $np \to np\rho^0$ was selected using
the background subtraction. The study showed that the observed ρ^0 production is
provided by the 'hanged' diagram of OPER-model.\\
The obtained results are in agreement with world data.

Primary author: JERUSALIMOV, Alexander (JINR Dubna)

Presenter: JERUSALIMOV, Alexander (JINR Dubna)

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