

**REPORT on the Project entitled «Investigation of pion interactions with 4He nucleus at beams energies below the Delta-resonance» (PAINUC)**

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The Project PAINUC « Investigation of pion interactions with 4He nucleus at beam energies below the Delta-resonance » is one of the components of the theme « Physics of light mesons » that includes also the projects COMET (at J-Parc), GDH&SPASCHARM (at MAMI, ELSA, FAIR and Protvino), SPRING (at COSY and GSI) along with the activities TRITON (at JINR), PEN-MEG (at PSI) and MUON as discussed elsewhere in more detail.

This project PAINUC covers the investigations of pion-nucleus interactions at very low beam energies performed at the Dubna Phasotron using a special chamber technique that was developed by Dubna group of physicists and is presently in working conditions. New results of the threee-prong events from the reaction are now available.

Several times PAINUC scientific presentations have been highly appreciated by the Nuclear Physics PAC of JINR : the success of the Dubna group encouraged the PAC to recommend to continue the analysis (see Refereee Reports of Dr. Claude Petijean and Pr. Korsheninnikov in January 2017).

**In conclusion, as the final results appear to be quite convincing and whereas both the requested resources and the time schedules of the Project PAINUC appear to be rather reasonable, I recommend the proposed plans (runs with pion beams at different energies with increased intensities) for the near future to be financially supported.**

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