

Search for parameter modification of neutral light mesons in nuclear matter in Hyperon-M experiment at U-70 accelerator

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Hyperon-M at U-70 accelerator in Protvino is fixed-target experiment for study of parameter modifications of neutral light mesons produced in meson-nucleus interactions on different nuclear targets. On the base of collected high statistic experimental data on C, Be, Al, Cu, Sn and Pb targets the parametric unfolding method for meson mass and width determination (measurement) is developed to decrease systematic errors related to various apparatus (instrument) effects of the experiment and thus to improve essentially the precision of parameter measurements. It is employed for the analysis of $f_2(1270)$ and $\omega(782)$ mesons. The obtained masses and widths of the mesons are presented in dependence on the target mass A with the aim to search for possible modification of the meson properties in nuclei.

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