ID contributo: **109** Tipo: **non specificato**

Role of a triangular singularity in the $\gamma p \to p\pi^0\eta$ reaction

martedì 18 ottobre 2022 15:20 (20 minuti)

Recently structures in invariant mass distributions and excitation energy spectra have been attributed to triangular singularities as discussed in e.g., [1,2] and in the review by Guo et al. [3]. These singularities emerge under specific kinematic conditions when new reaction channels open up. It will be shown that a triangular singularity associated with the opening of the $\gamma p \to pa_0 \to p\pi^0\eta$ channel can explain the observation of a structure in the $M_{p\eta}$ invariant mass distribution near 1700 MeV/c^2 in the $\gamma p \to p\pi^0\eta$ reaction [4].\newline
\noindent
[1] G.~D.~Alexeev \textit{et al.}, The COMPASS Collaboration, Phys. Rev. Lett \textbf{127}, 082501 (2021)\newline
[2] M.~Mikhasenko, B.~Ketzer and A.~Sarantsev, Phys. Rev. D \textbf{91}, 094015 (2015).\newline
[3] F.~K.~Guo \textit{et al.}, Rev. Mod. Phys. D \textbf{90}, 015004 (2018).\newline
[4] V.~Metag \textit{et al.}, EPJA 57 (2021) 325.\newline
\
Supported by DFG through SFB/TR16.

\end{document}

Autore principale: METAG, Volker

Coautore: NANOVA, Mariana (II.Physikalisches Institut, Universität. Giessen)

Relatore: METAG, Volker

Classifica Sessioni: Parallel 2

Classificazione della track: Baryon spectrum through meson photoproduction and electro-production