

Role of a triangular singularity in the $\gamma p \rightarrow p\pi^0\eta$ 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 $\gamma p \rightarrow p a_0 \rightarrow p\pi^0\eta$ channel can explain the observation of a structure in the $M_{p\eta}$ invariant mass distribution near 1700 MeV/c² in the $\gamma p \rightarrow p\pi^0\eta$ reaction [4].

- [1] G.-D.-Alexeev et al., The COMPASS Collaboration, Phys. Rev. Lett **127**, 082501 (2021)
- [2] M.-Mikhasenko, B.-Ketzer and A.-Sarantsev, Phys. Rev. D **91**, 094015 (2015)
- [3] F.-K.-Guo et al., Rev. Mod. Phys. D **90**, 015004 (2018)
- [4] V.-Metag et al., EPJA **57** (2021) 325

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