

Study of the resonance $\psi(4040)$ and its companion poles

Saturday, 9 June 2018 14:30 (1:30)

Collaboration

Abstract content

We study the vector state $\psi(4040)$ and its decays into the channels DD , DD^* and D^*D^* by making use a QFT approach. We study the spectral function in the vector kaonic sector up to 4.2 GeV and we are looking for the pole(s) in the complex plane. In particular, we perform a fit to the experimental data of the cross-sections of the reactions e^+e^- into DD^* and D^*D^* and investigate if, besides the standard seed pole corresponding to $\psi(4040)$, other poles exist. A possibility is to describe the meson $Y(4008)$ as a dynamically generated companion pole of $\psi(4040)$.

Primary author(s) : PIOTROWSKA, Milena (Jan Kochanowski University Kielce)

Co-author(s) : GIACOSA, Francesco (Frankfurt University); KOVACS, Peter (Wigner RCP)

Presenter(s) : PIOTROWSKA, Milena (Jan Kochanowski University Kielce)

Session Classification : Poster Session