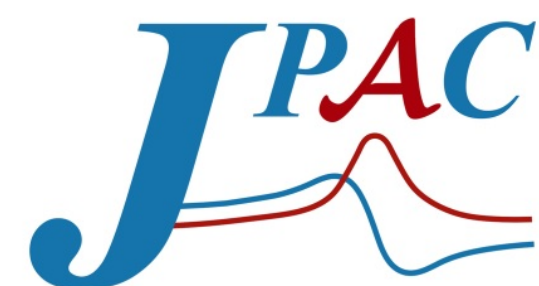


Amplitude analyses and (Light) Hadron Spectroscopy

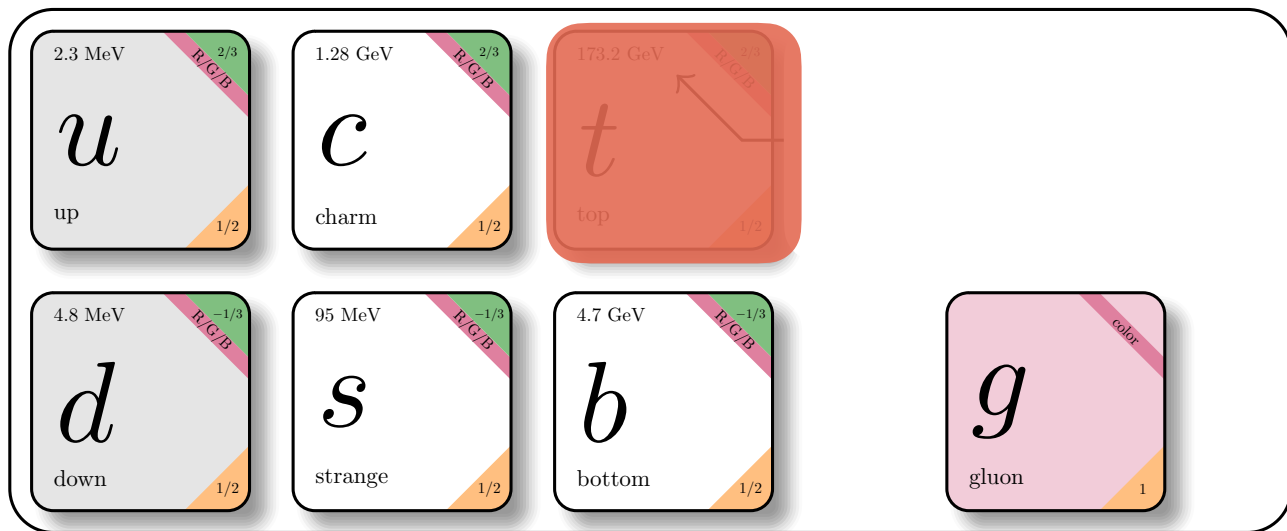
2022 Town Hall Meeting

Arkaitz Rodas

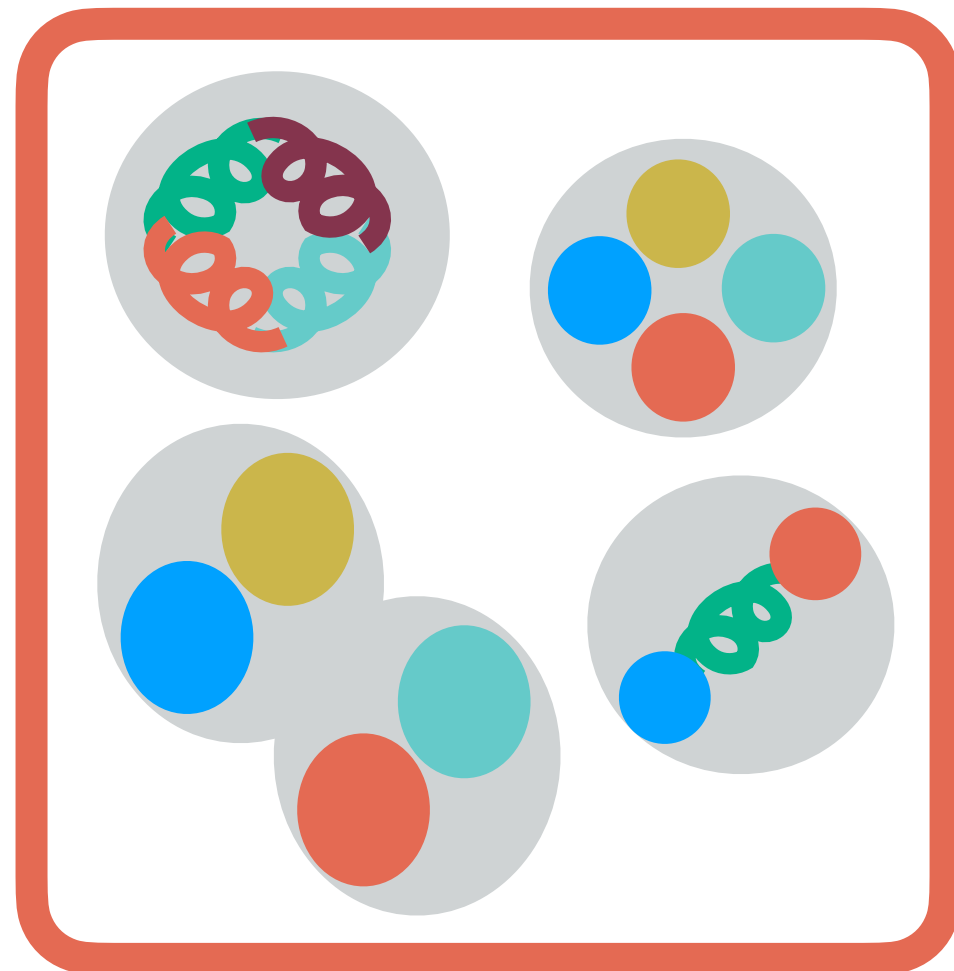
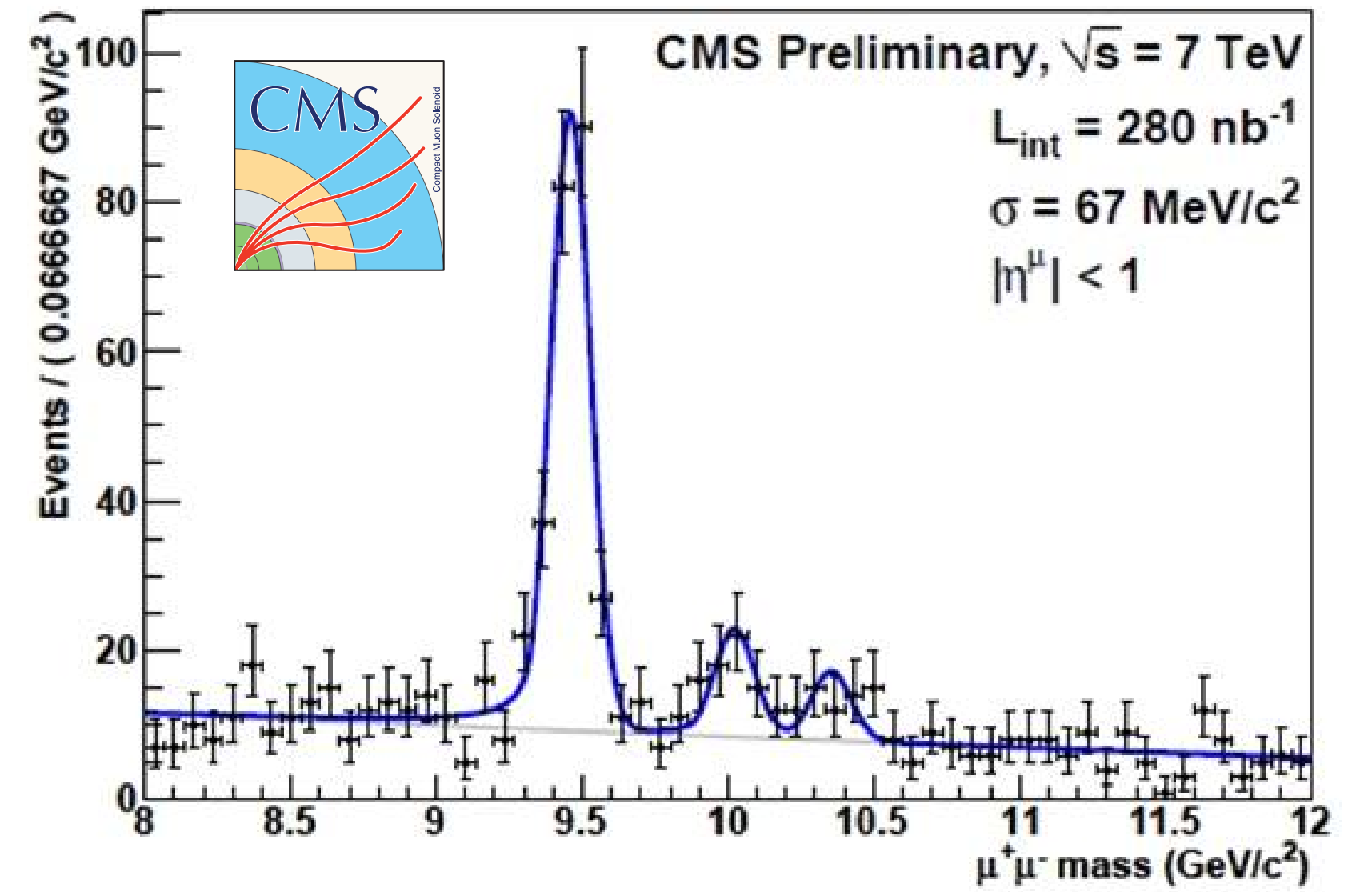
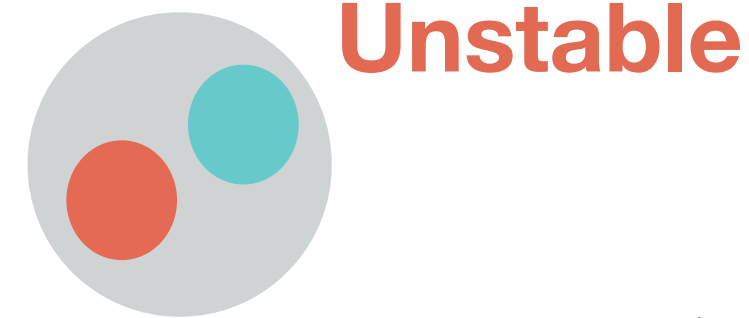


Amplitude analyses

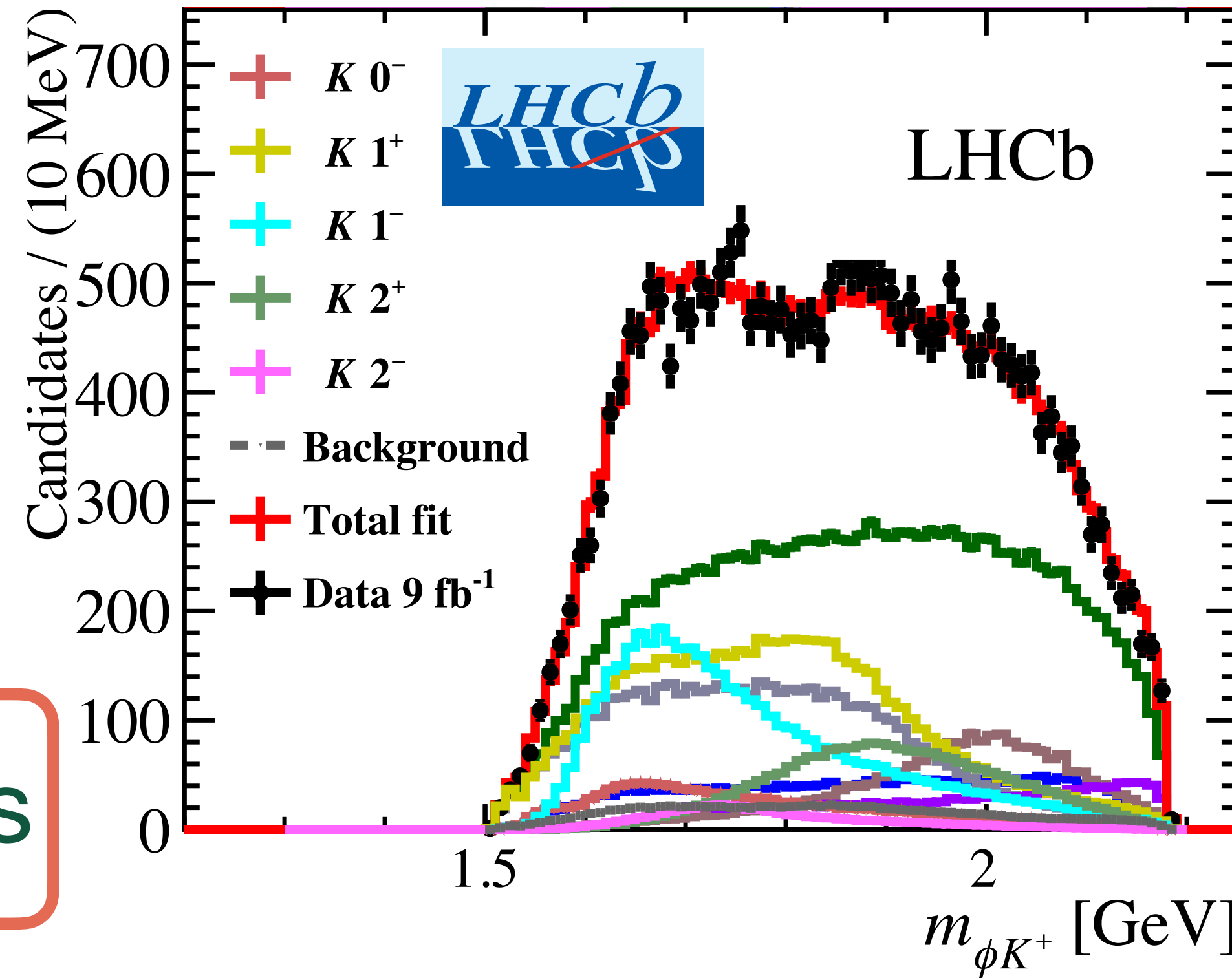
QCD



Simple Amplitude



What about exotic hadrons?



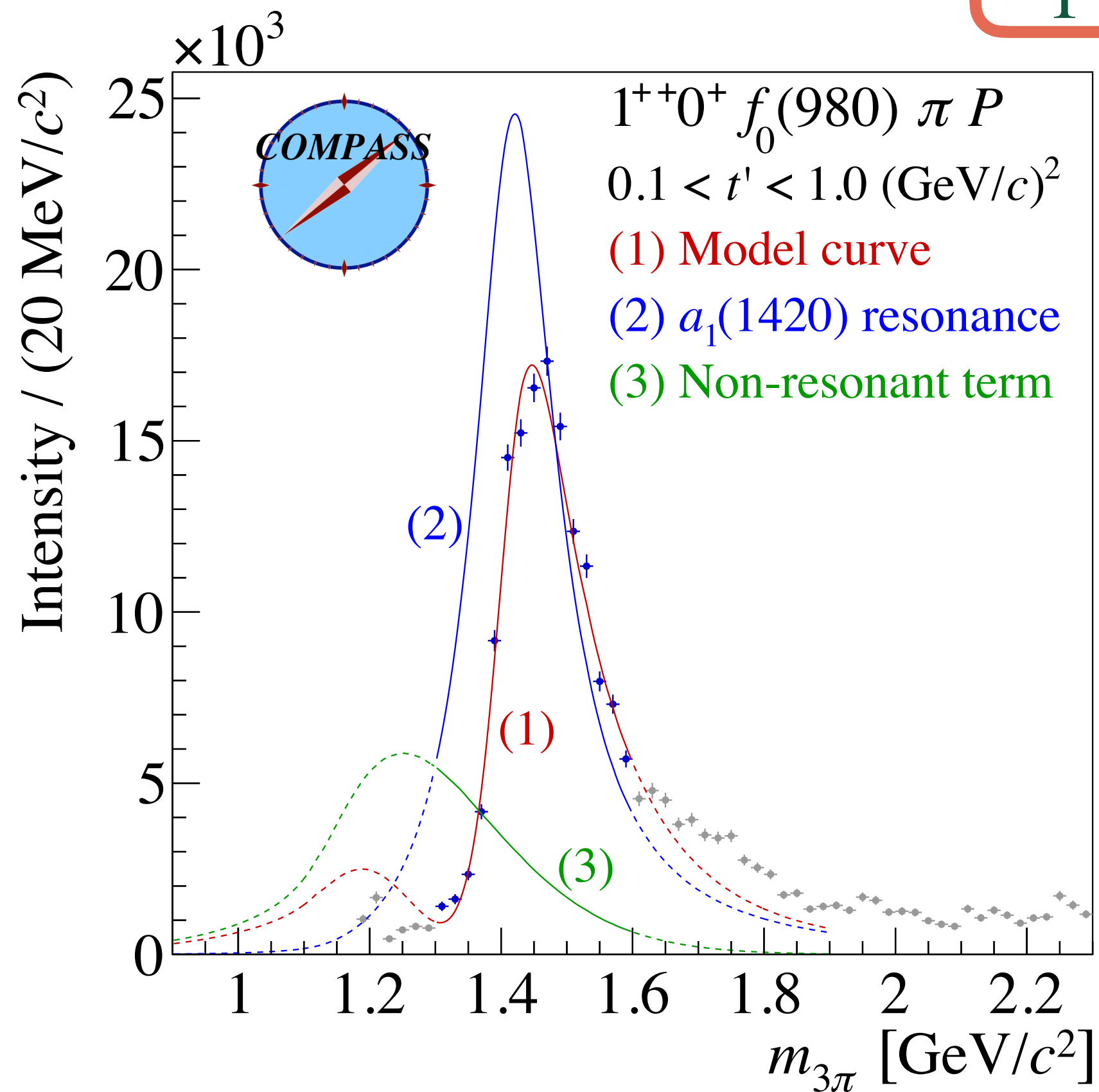
Complicated structures

Excited Hadrons \longleftrightarrow Amplitudes

The problem

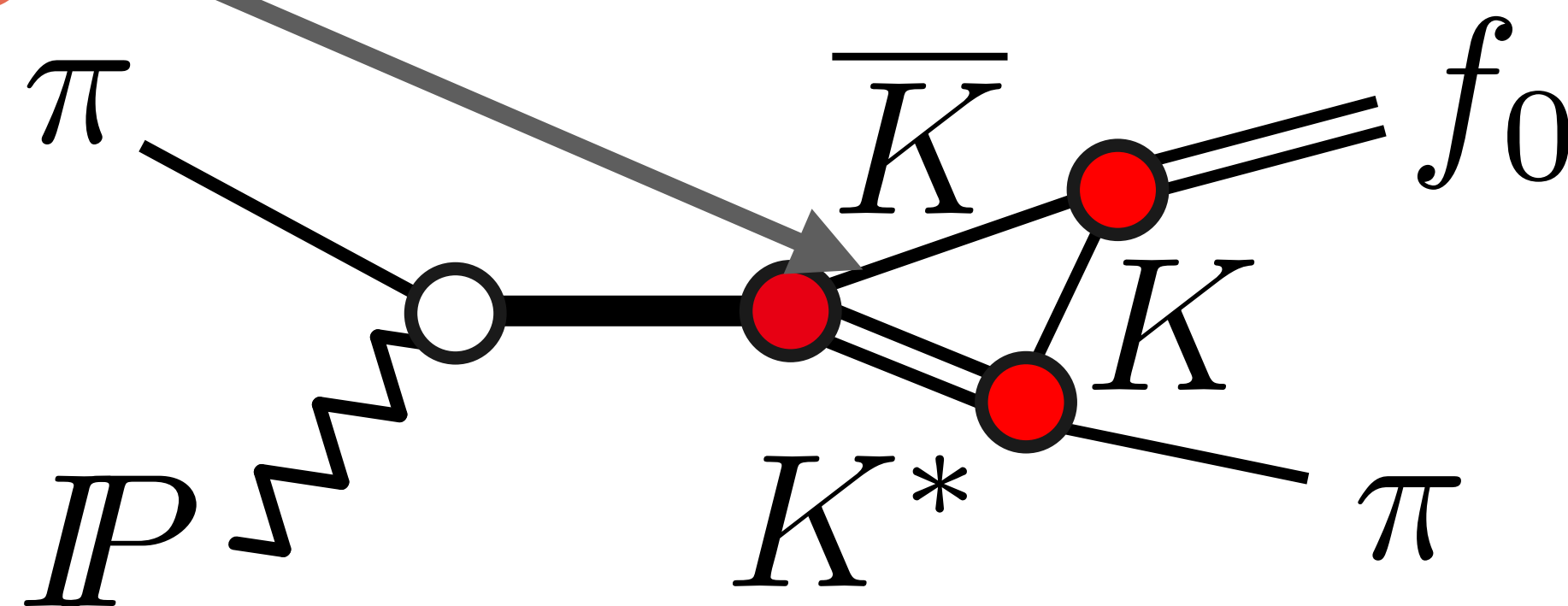
Breit-Wigner analysis

Possible exotic

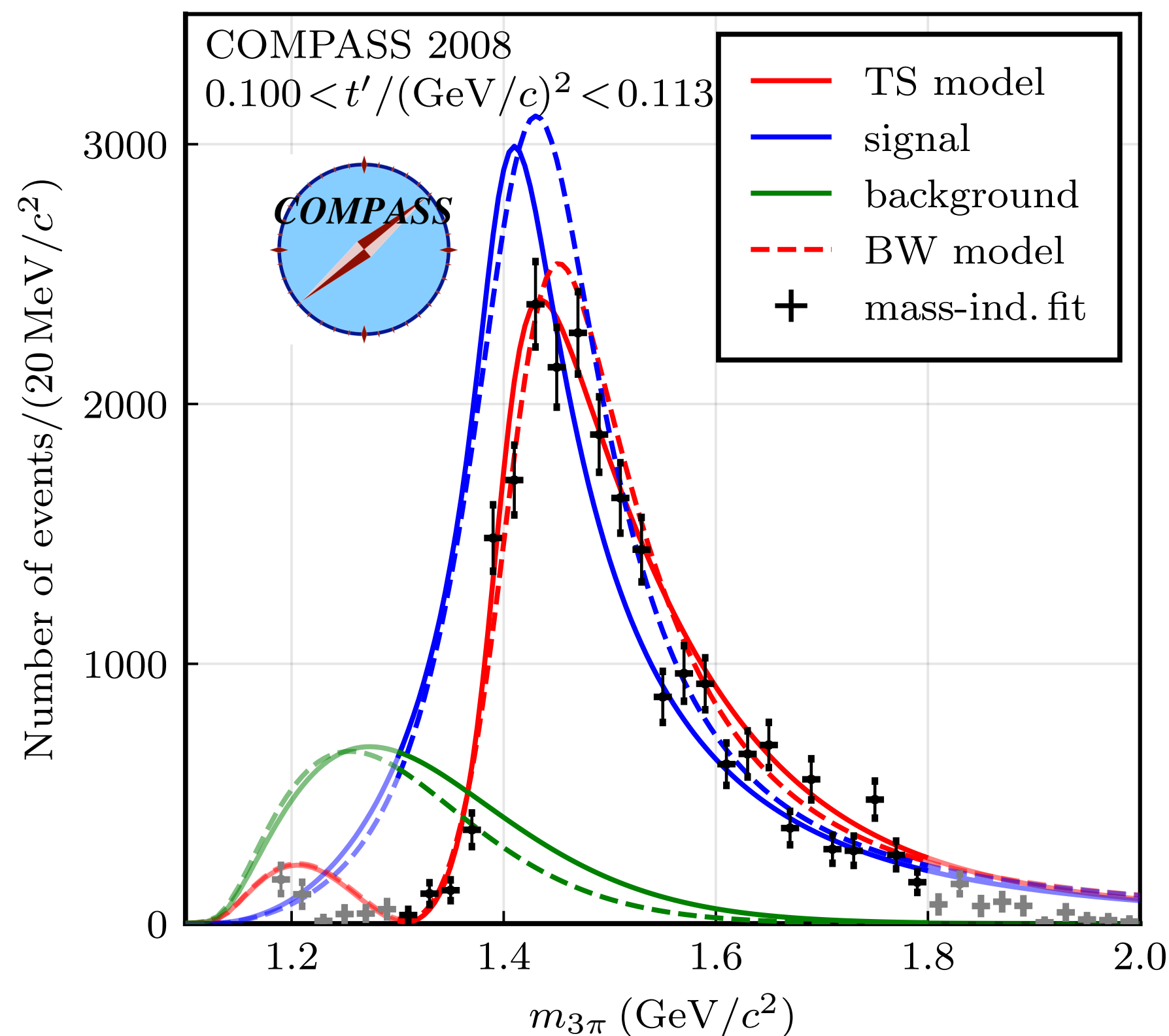


$a_1(1420)$

Theory says otherwise



Intensity of the $1^{++}0^+ f_0\pi P$ -wave



Amplitude analyses \longleftrightarrow Data

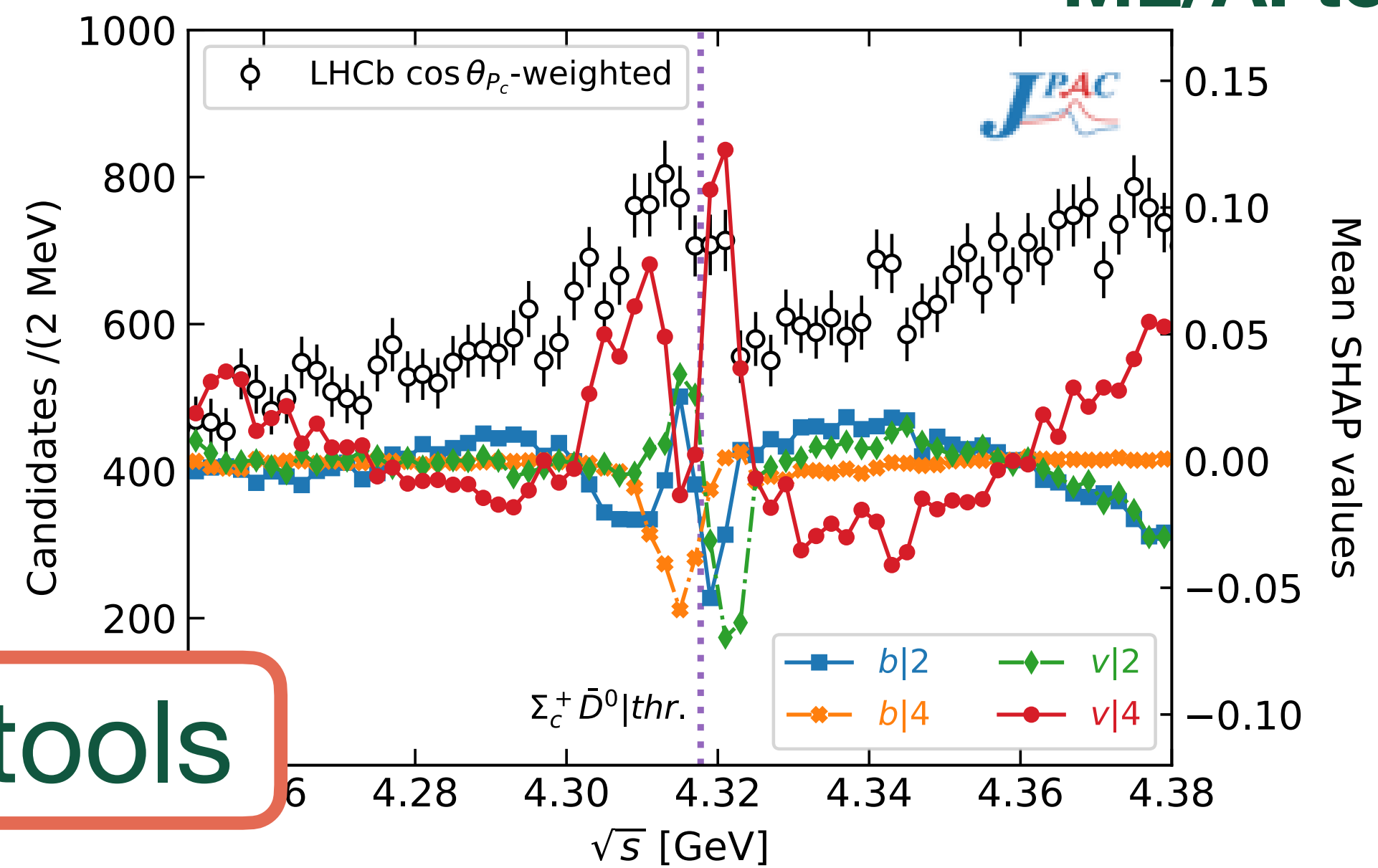
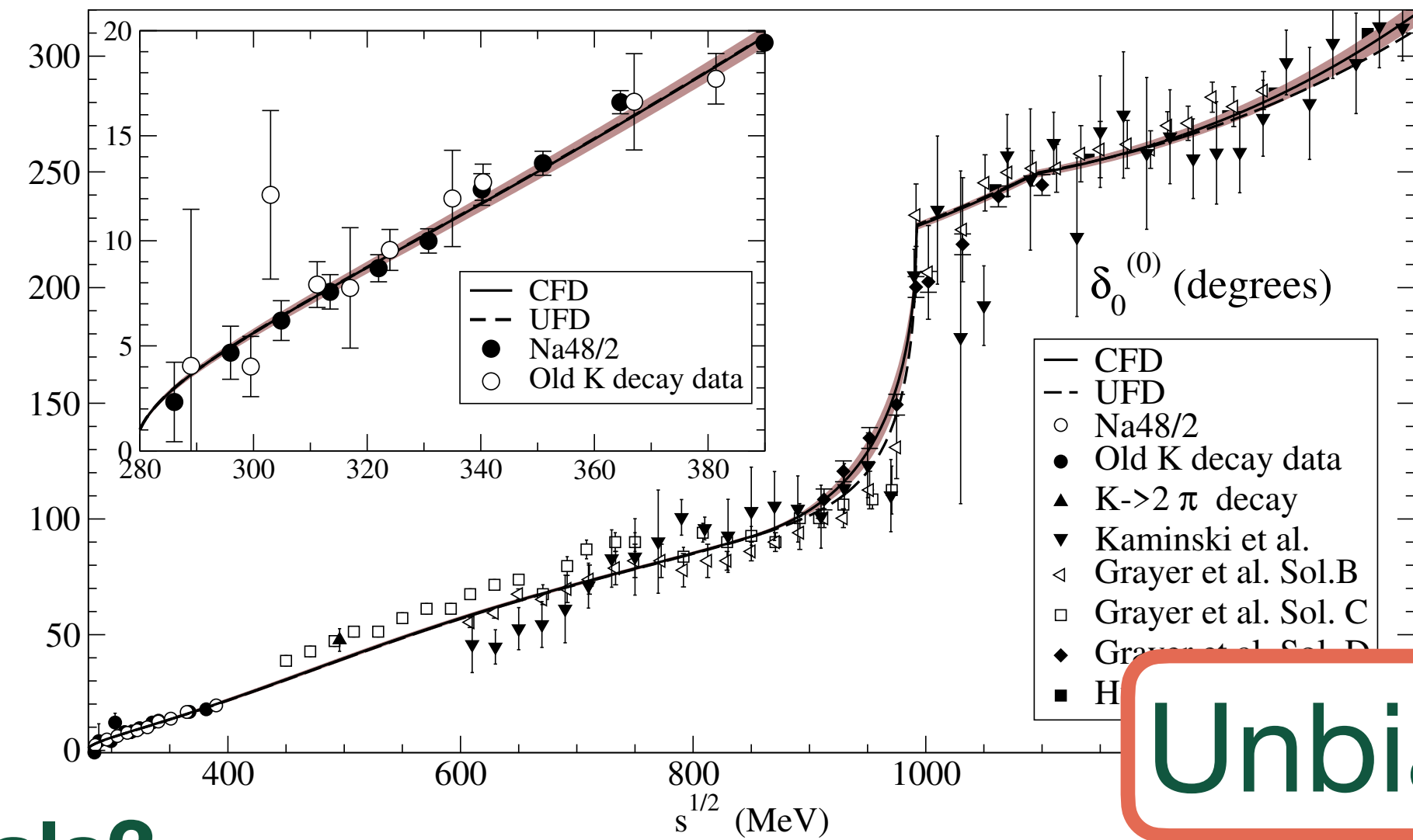
They should be of same quality

How

QFT principles

← Theory / Computer →

ML/AI tools

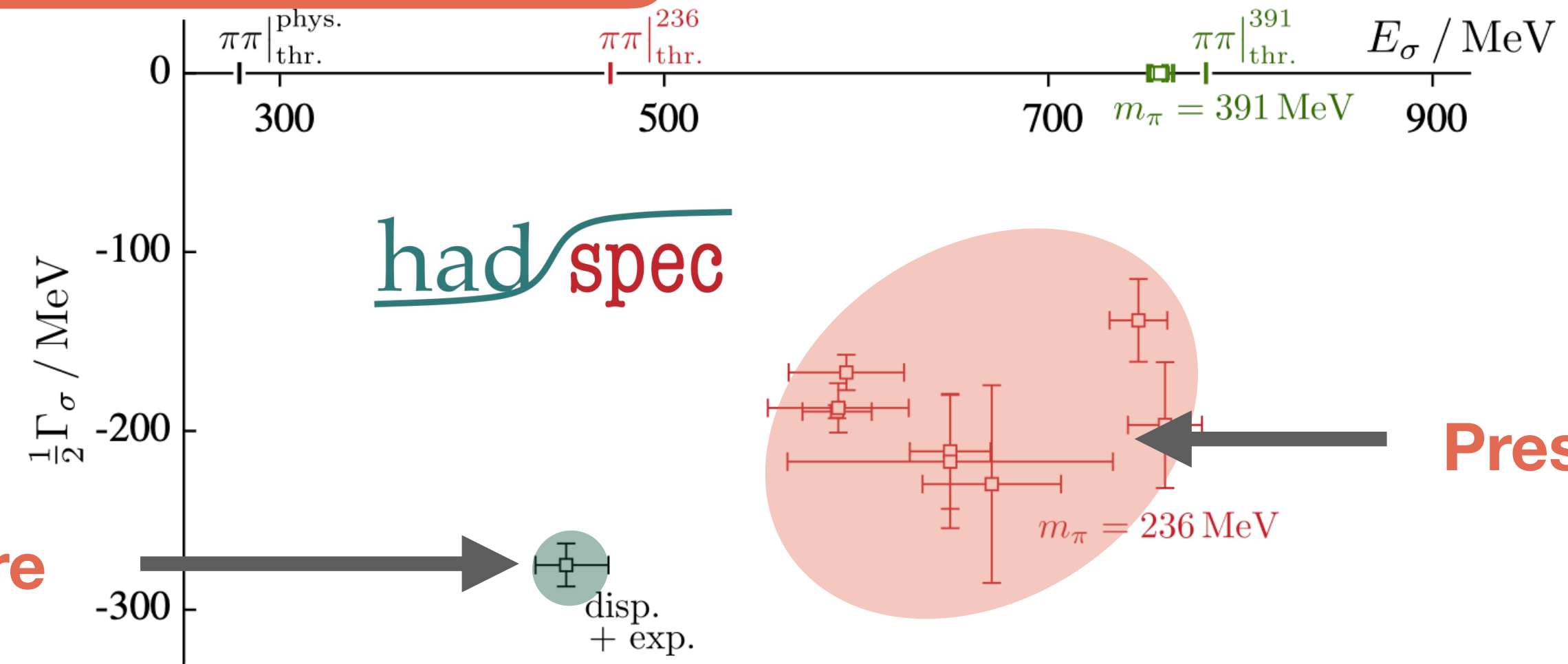


Unbiased tools

Future goals?

Lattice at phys. m_π

High statistics



Present

Future

