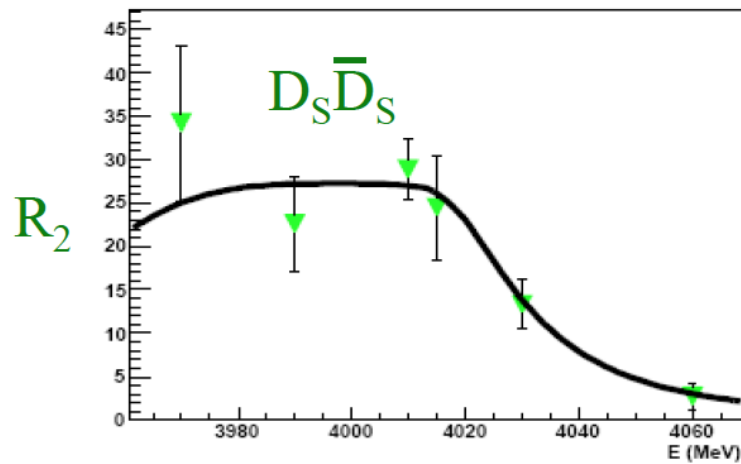
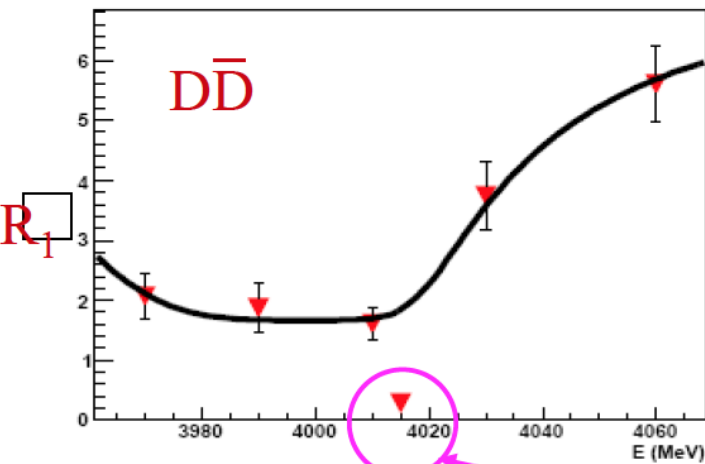
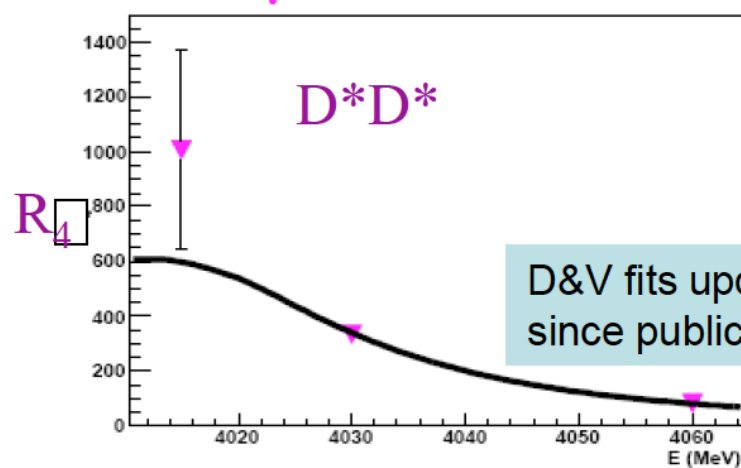
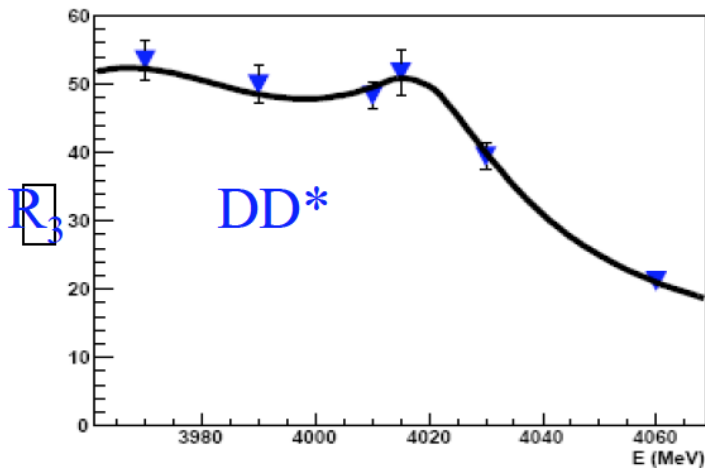


# New Resonance at $D^*D^*$ Threshold?

- Model of **Dubynskiy & Voloshin** [ *Mod. Phys. Lett. A21, 2779 (2006)* ]
- Express exclusive channels in terms of dimensionless  $R_k$
- Parametrize  $R_k$  in terms of expected threshold behavior & relative production rates in the presence of a  $\psi(4040)$



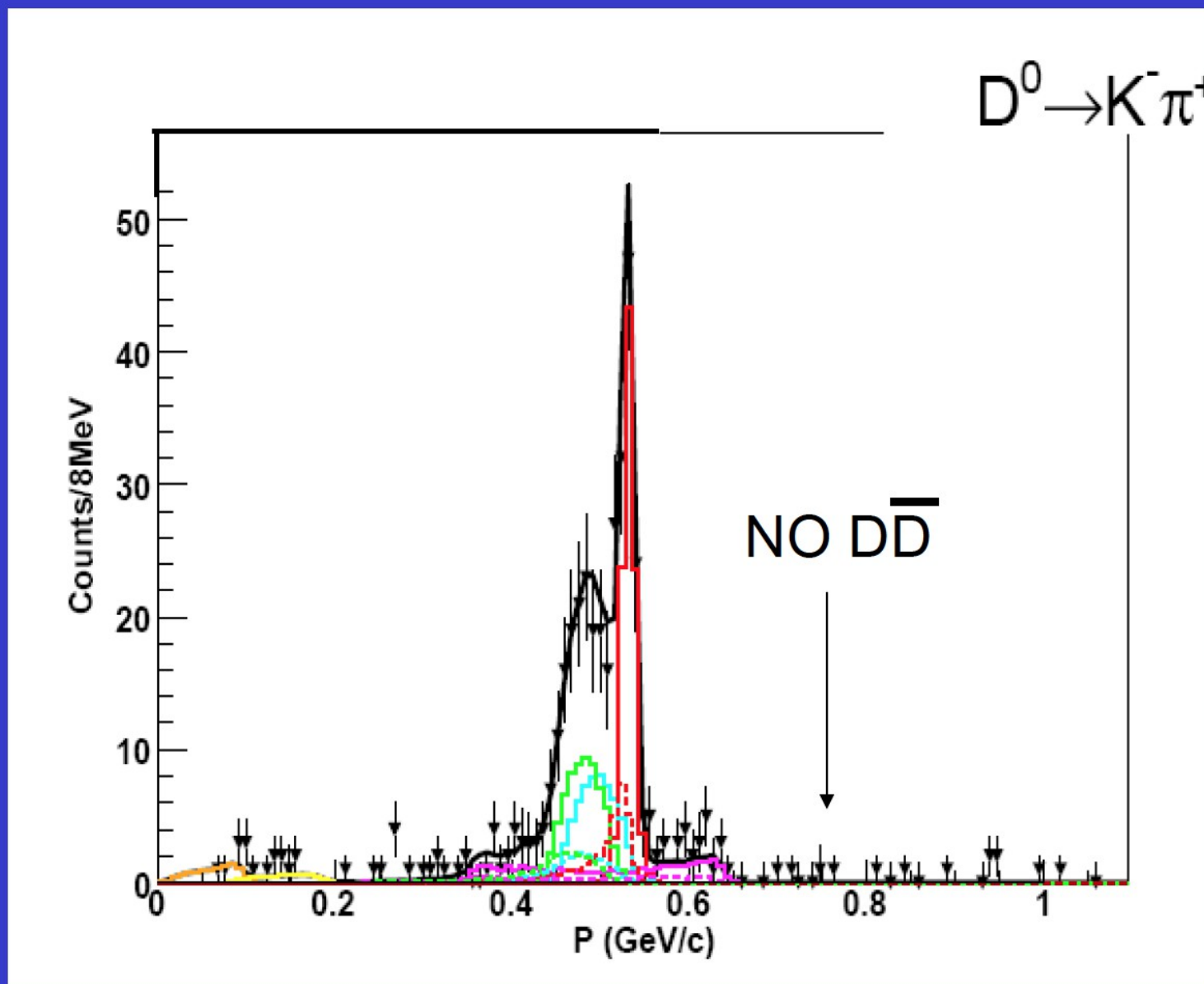
Fails to fit this point



- Fit to CLEO data: one large deviation near  $D^*D^*$  threshold
- This model needs interference with a new **narrow resonance** at  $E_{cm} = 4015$  MeV to explain dip in DD



# "Missing" $DD$ @ $E_{cm} = 4015$ MeV





# Momentum Spectra



Do NOT reconstruct  $D^*$ ; instead use  $D$  momentum spectrum.

2-body production shows up as peaks &/or Doppler-smearred peaks

Example at right:  $D^0 \rightarrow K^- \pi^+$  momentum spectrum after  $D^0$ -sideband subtraction

