New Resonance at D*D* Threshold?

- 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 $\psi(4040)$

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

D&V fits updated since publication
“Missing” DD @ $E_{cm} = 4015$ MeV

$D^0 \rightarrow K^- \pi^+$

NO DD

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Momentum Spectra

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

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

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

$E_{cm} = 4170$ MeV

$D^*\bar{D}^*$

$D^0 \rightarrow K^-\pi^+$

$D^*\bar{D}$

$D\bar{D}$

$D^*D\pi$

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