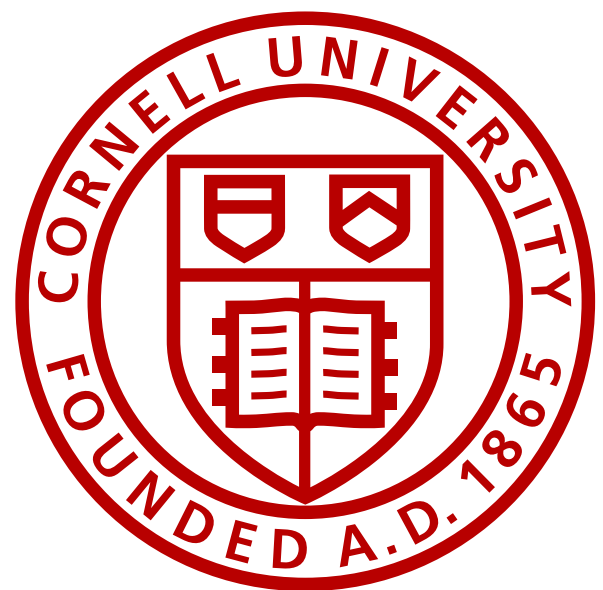




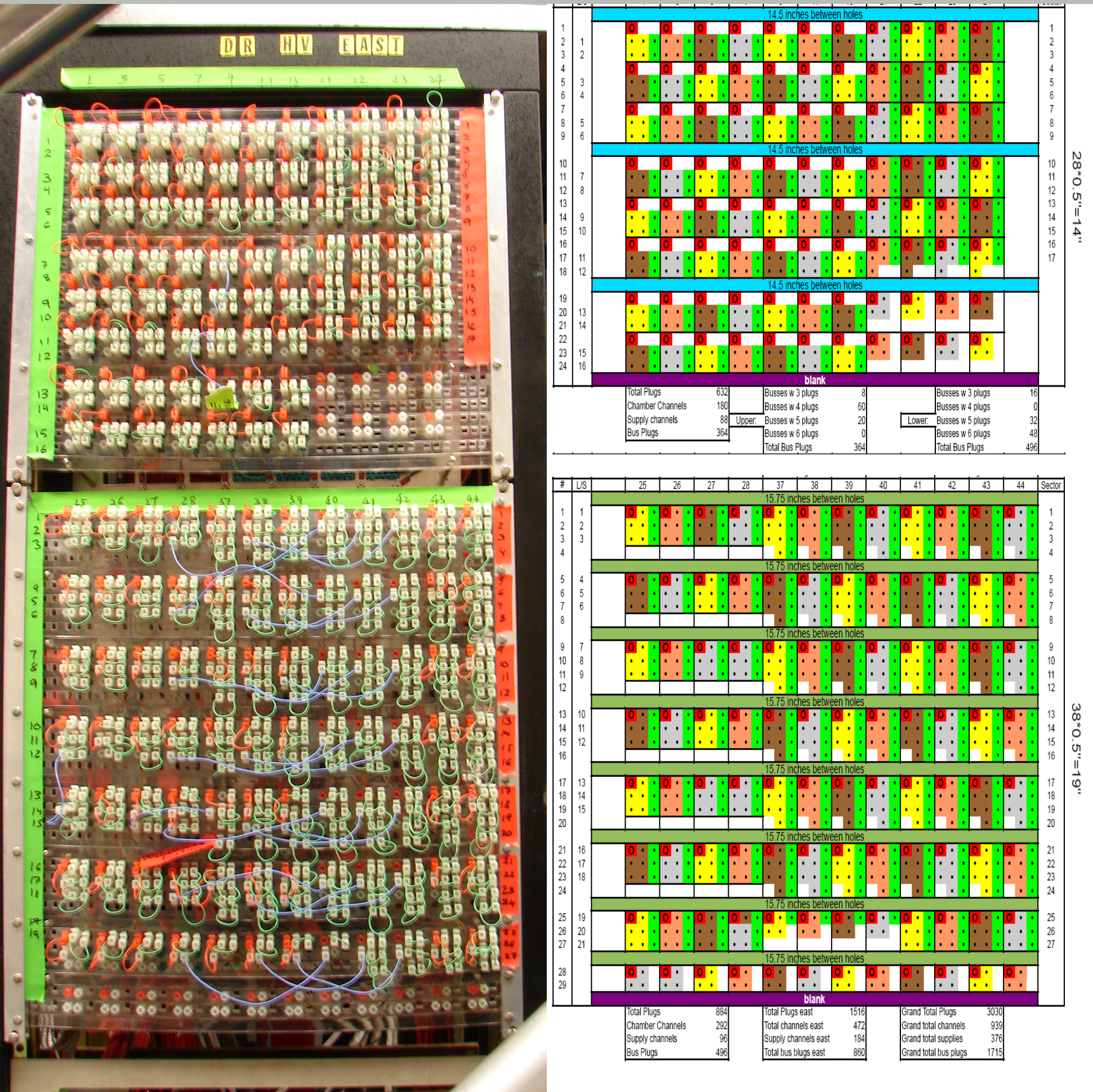
Introduction

I'm a graduate student working on CLEO and CMS experiment with Prof. Jim Alexander and Prof. Anders Ryd. My thesis is based on the CLEO-c $\psi(3770)$ data.

CLEO

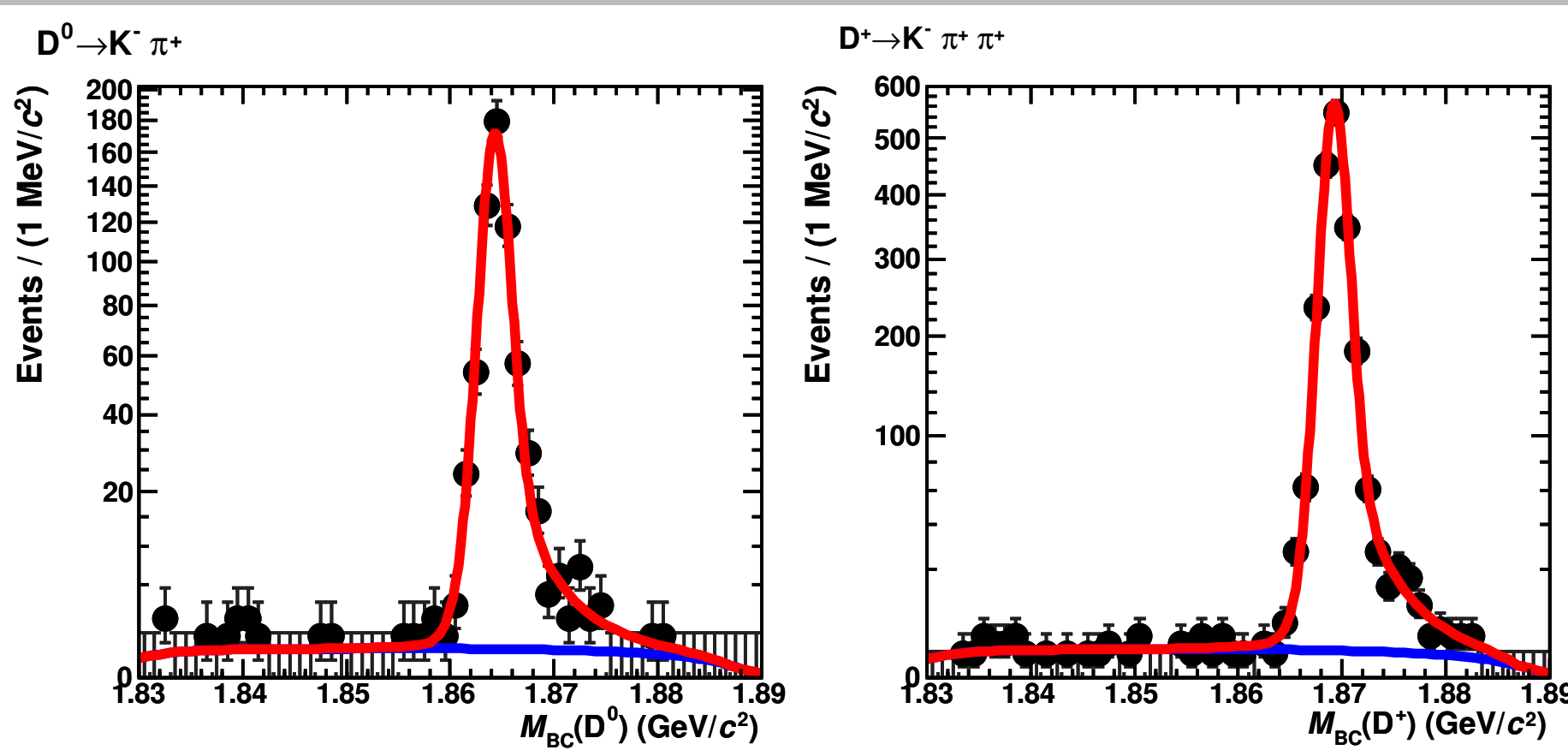
High Voltage System

- ▶ Performed maintenance and repair work of HV system (LeCroy)
- ▶ Co-designed and implemented HV distribution system for drift chamber
- ▶ Designed and implemented the software to manipulate the HV constants



D-Hadronic Analysis

- ▶ Measurement of Absolute Hadronic Branching Fractions of *D* Mesons



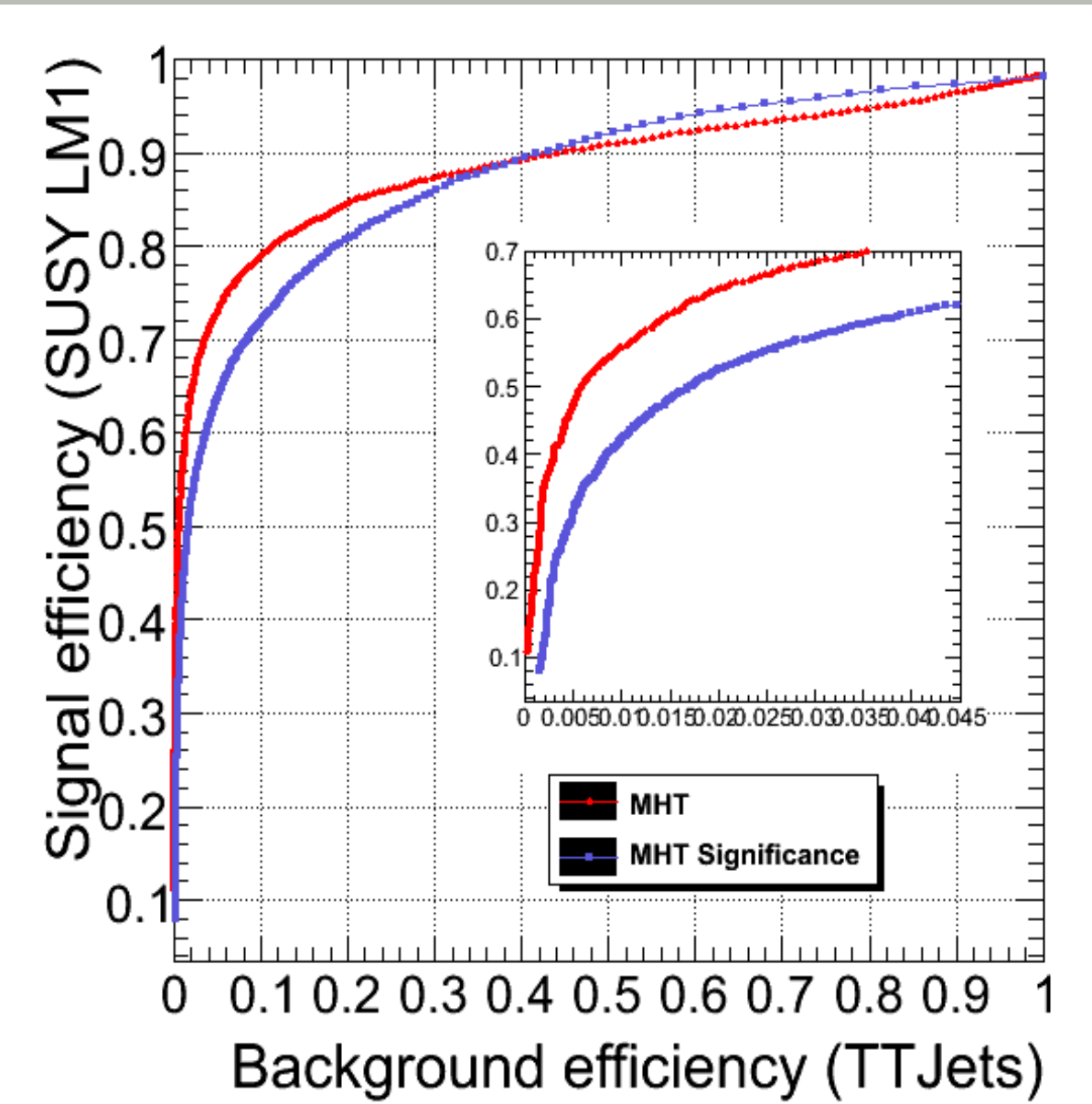
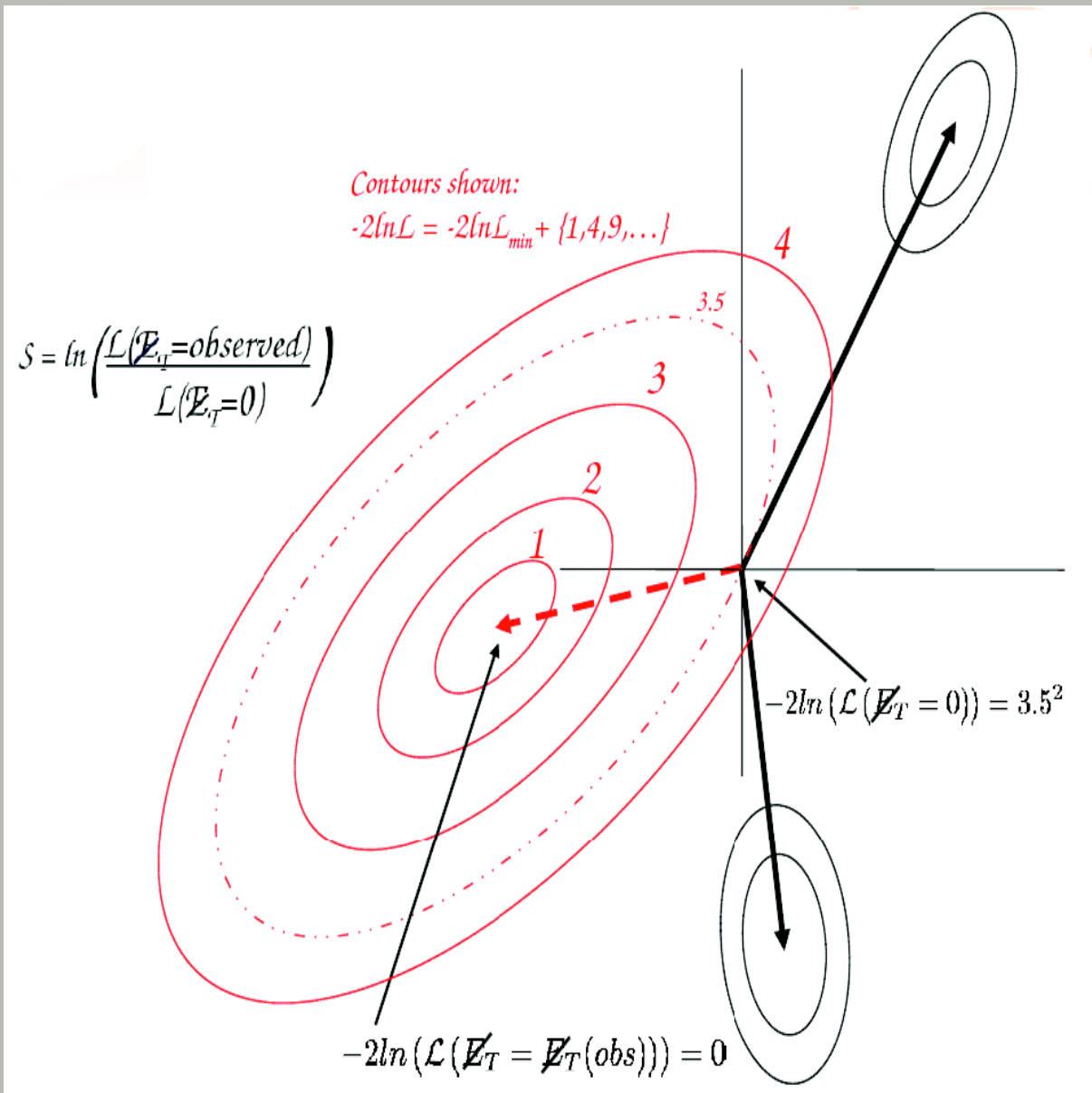
Mode	$\mathcal{B}$ (%)
$D^0 \rightarrow K^- \pi^+$	$3.87 \pm 0.04 \pm 0.08$
$D^0 \rightarrow K^- \pi^+ \pi^0$	$14.6 \pm 0.1 \pm 0.4$
$D^0 \rightarrow K^- \pi^+ \pi^- \pi^+$	$8.3 \pm 0.1 \pm 0.3$
$D^+ \rightarrow K^- \pi^+ \pi^+$	$9.2 \pm 0.1 \pm 0.2$
$D^+ \rightarrow K^- \pi^+ \pi^+ \pi^0$	$6.0 \pm 0.1 \pm 0.2$
$D^+ \rightarrow K_S^0 \pi^+$	$1.55 \pm 0.02 \pm 0.05$
$D^+ \rightarrow K_S^0 \pi^+ \pi^0$	$7.2 \pm 0.1 \pm 0.3$
$D^+ \rightarrow K_S^0 \pi^+ \pi^+ \pi^-$	$3.13 \pm 0.05 \pm 0.14$
$D^+ \rightarrow K^+ K^- \pi^+$	$0.93 \pm 0.02 \pm 0.03$

- ▶ Published on Phys. Rev. D **76**, 112001 (2007)
- ▶ Updating the analysis on the full CLEO data

CMS

MET Significance

- ▶ Develop the MET Significance algorithm
- ▶ Test the performance with SUSY analysis



- ▶ Implement the code based on CMSSW
- ▶ Currently still under development

Outreach

- ▶ Science Leadership Academy professional development workshop, NYC, 2009
- ▶ Tour guide at Wilson Laboratory, 2005 – present
- ▶ Expand Your Horizon, 2008.
- ▶ Light in Winter Festival, 2007

Acknowledgment

- ▶ Prof. Alexander & Prof. Ryd
- ▶ Members in DHadronic Group: D. Cassel, P. Onyisi, S. Stroiney, and W. Sun
- ▶ Members in CU-EWK Group: F. Blekman, L. Gibbons, and A. Khukhunaishvili
- ▶ NSF & DOE