## **DPF2015**



Contribution ID: 69

Type: not specified

## Observation of ttZ and measurement of ttW at CMS

Wednesday, 5 August 2015 16:00 (25 minutes)

New measurements of top quark pair production in association with a W or Z boson are presented, using 19.5 fb-1 of 8 TeV pp collision data collected by the CMS experiment at the CERN LHC. Final states with oppositesign, same-sign, three, and four charged leptons plus b-tagged jets are examined. Signal ttW and ttZ events are identified by reconstructing the top quark pair, yielding the most sensitive and precise measurements of these processes to date. New limits are also placed on five anomalous dimension-six operators which would affect the ttW and ttZ cross sections.

## **Oral or Poster Presentation**

Oral

**Primary authors:** BRINKERHOFF, Andrew (University of Notre Dame (US)); WOODARD, Anna Elizabeth (University of Notre Dame (US))

**Co-authors:** MUELLER, Charles Nicholas (University of Notre Dame (US)); SMITH, Geoffrey Nathan (University of Notre Dame (US)); LANNON, Kevin Patrick (University of Notre Dame (US))

Presenter: BRINKERHOFF, Andrew (University of Notre Dame (US))

Session Classification: Top Physics

Track Classification: Top Physics