STATUS REPORT ON SEMILEPTONIC WW/WZ DECAY

Federico Bertolucci Chiara Roda

21 Maggio 2013

- cutflow status
- aTGC studies

cutflow status

- completed items:
 - $W \longrightarrow e \nu + 5$ partons
 - $W \longrightarrow \mu \nu + 5$ partons
 - *WW*, complete and reduced samples
 - electron data, run 190300
- electron data cutflow highlights a problem in the skimmed ntuples
- new skim/slim requested, should be ready soon
- · starting checks in the meanwhile on the same electron run
- other samples:
 - most of MC samples have been processed
 - on those finished, agreement with David, but not as good as in the previous samples (up to 8%, wrt \sim 0.3%)
 - better agreement on muon channel for almost all samples
 - missing samples: seems a problem on the grid
- checking also cross sections, K-factors, MC filter efficiencies

aTGC status

- for the aTGC limit measurement, it is important to have a well-populated tail in the $p_T(jj)$ spectrum
- need more statistics for W+partons samples
- studies have been done to create a filter and increase statistics for $p_T(jj) > 300 \text{ GeV}$
- filter is very efficient, less than 5% of generated events pass the filter
- as an estimate, an increase of a factor 10 in statistics can improve the results by 10%-20%
- new MC requests:
 - W+1p, 115M EVG events ightarrow 138k passing to AFII reconstruction
 - W+2p, 240M EVG events ightarrow 1.4M passing to AFII reconstruction
 - W + 3p, 50*M* EVG events \rightarrow 775*k* passing to AFII reconstruction
- is this feasible? contacting MC production experts