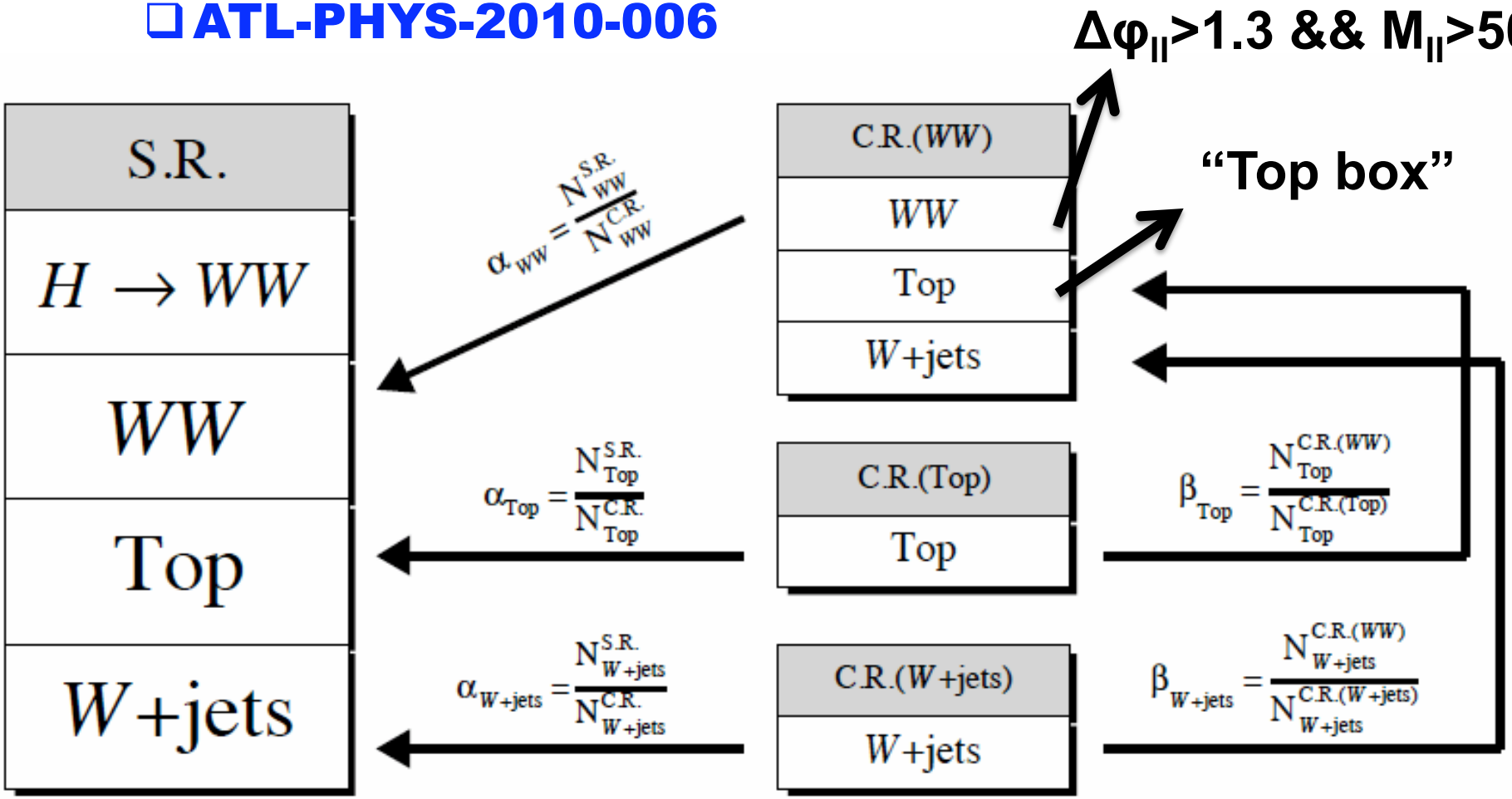
Theoretical inputs for H->WW

- **ATLAS has recently made public detailed study of H->WW->llvv (0j,1j,2j)**
  - **ATL-PHYS-2010-006**



Theoretical input is needed to assess to the extrapolation uncertainties of WW and tt. This includes scale uncertainties and Wt contribution.

	α_{WW}	α_{top}	α_{W+jets}	β_{top}	β_{W+jets}
$H+0j$ analysis					
WW MC Q^2 Scale	5.1%	–	–	–	–
Top MC Q^2 Scale	–	27%	–	12%	–
Jet E Scale + Resolution	1.5%	66%	3%	61%	3%
b-tagging eff.	–	4.3%	–	4.3%	–
Wt contribution	–	40%	–	40%	–
MC Statistics	5.3%	71%	100%	8%	100%
Total Uncertainty	7.3%	108%	100%	74%	100%
$H+1j$ analysis					
WW MC Q^2 Scale	11%	–	–	–	–
Top MC Q^2 Scale	–	23%	–	7%	–
Jet E Scale + Resolution	9%	27%	20%	11%	57%
b-tagging eff.	–	34%	–	15%	–
MC Statistics	10.1%	17%	89%	6%	53%
Total Uncertainty	17.2%	52%	91%	20%	78%
$H+2j$ analysis					
WW MC Q^2 Scale	45%	–	–	–	–
Top MC Q^2 Scale	–	38%	–	8%	–
Jet E Scale + Resolution	15%	8%	–	2.5%	–
b-tagging eff.	0.4%	10%	–	16%	–
MC Statistics	27%	17%	–	1.4%	–
Total Uncertainty	54%	43%	–	18%	–