

$$H \rightarrow \tau\tau \quad (36 \text{ fb}^{-1})$$

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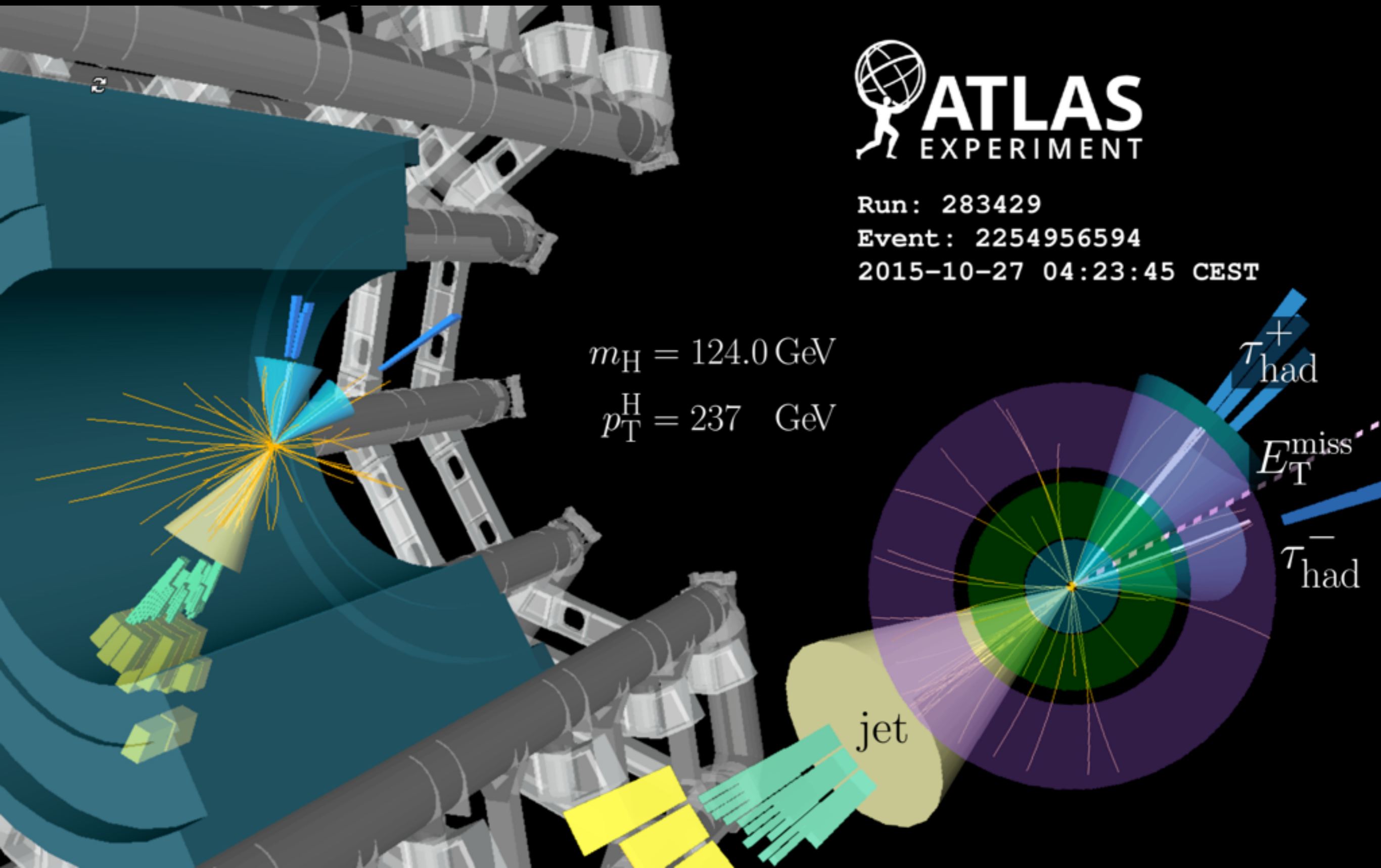
Run: 283429

Event: 2254956594

2015-10-27 04:23:45 CEST

$$m_H = 124.0 \text{ GeV}$$

$$p_T^H = 237 \text{ GeV}$$

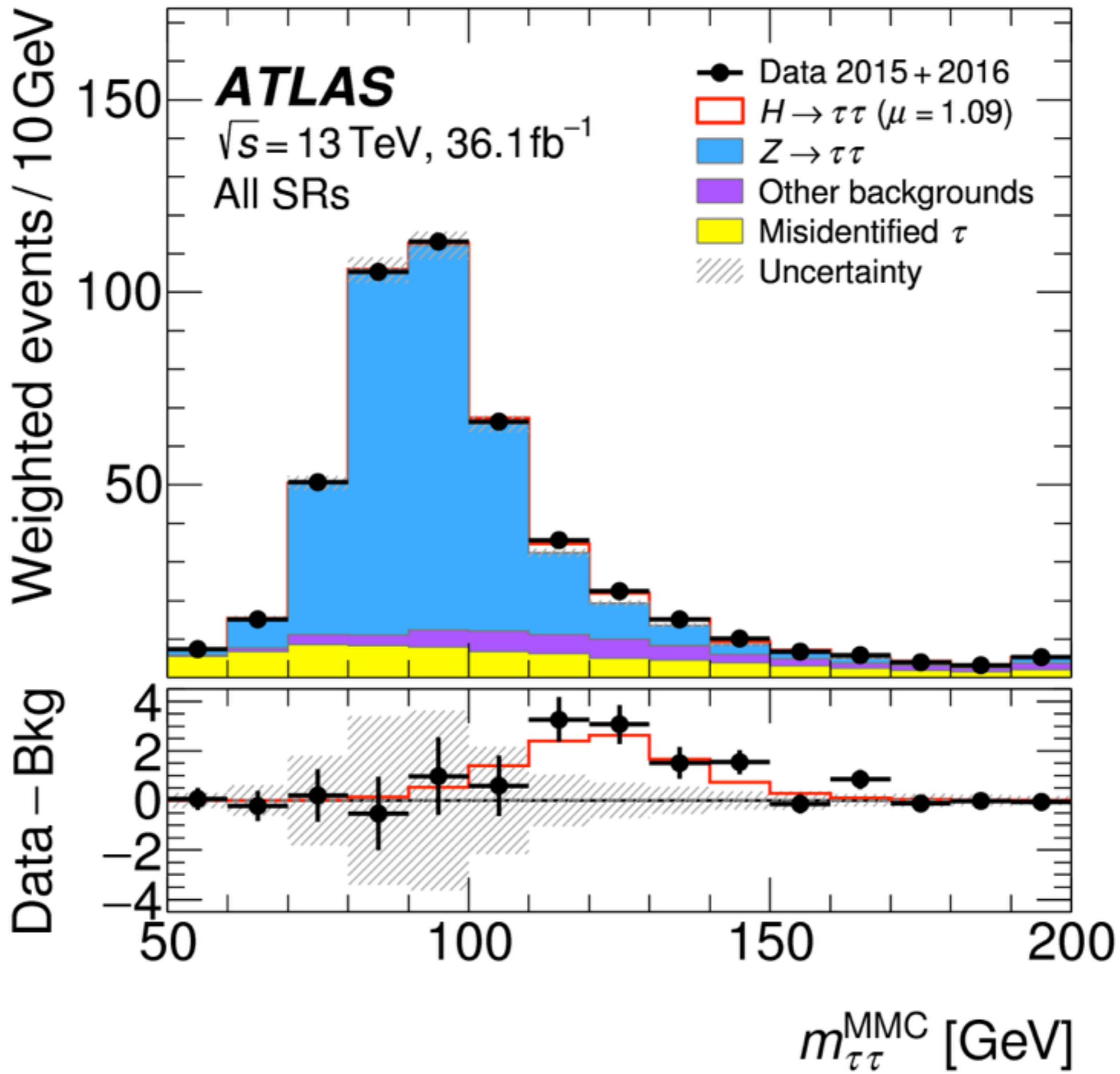


$\tau_{\text{had}}^+$

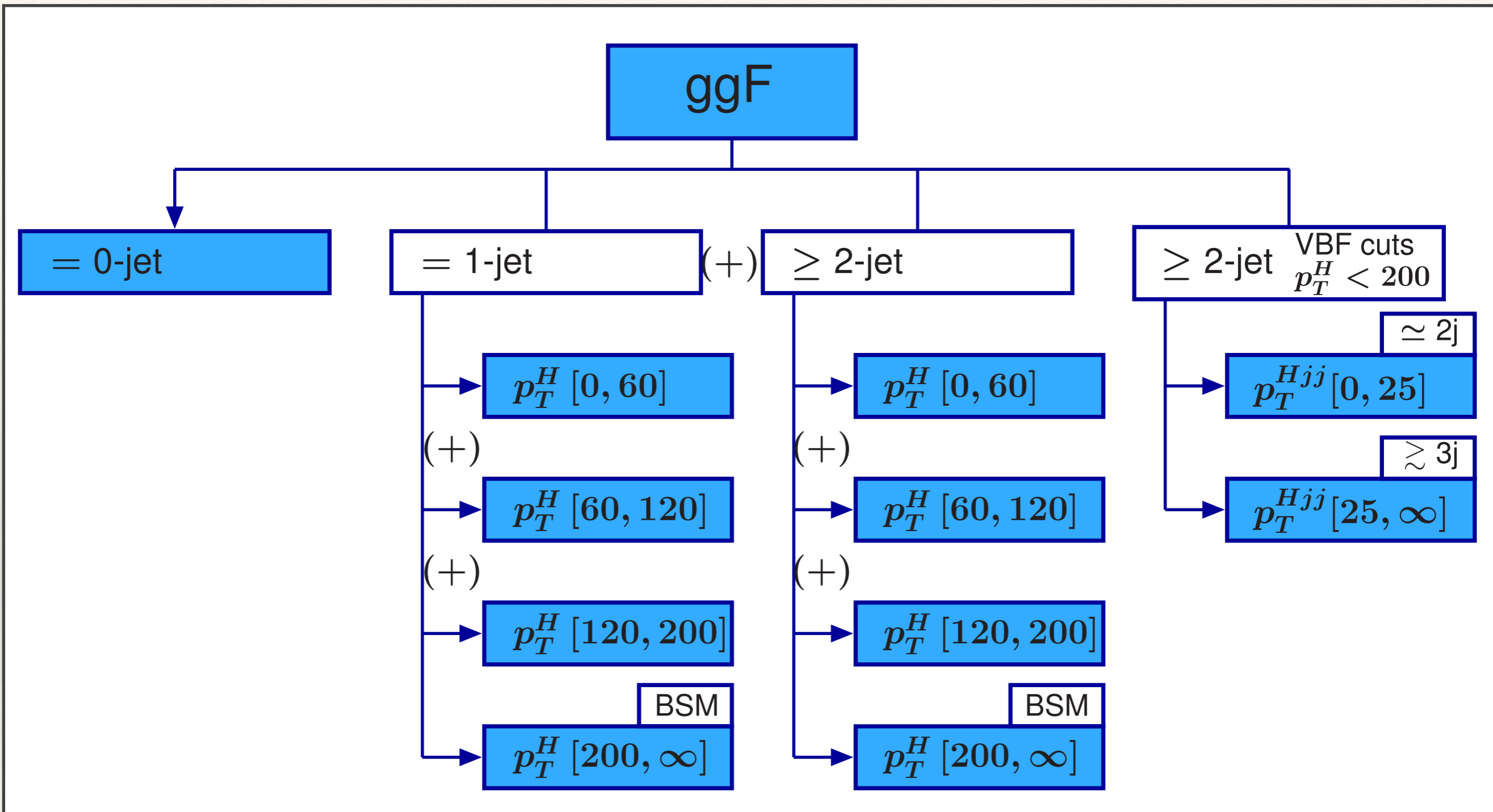
$E_T^{\text{miss}}$

$\tau_{\text{had}}^-$

jet



Source of uncertainty	Impact $\Delta\sigma / \sigma_{H \rightarrow \tau\tau}$ [%]	
	Observed	Expected
Theoretical uncert. in signal	+13.4 / -8.7	+12.0 / -7.8
Background statistics	+10.8 / -9.9	+10.1 / -9.7
Jets and $E_T^{\text{miss}}$	+11.2 / -9.1	+10.4 / -8.4
Background normalization	+6.3 / -4.4	+6.3 / -4.4
Misidentified $\tau$	+4.5 / -4.2	+3.4 / -3.2
Theoretical uncert. in background	+4.6 / -3.6	+5.0 / -4.0
Hadronic $\tau$ decays	+4.4 / -2.9	+5.5 / -4.0
Flavor tagging	+3.4 / -3.4	+3.0 / -2.3
Luminosity	+3.3 / -2.4	+3.1 / -2.2
Electrons and muons	+1.2 / -0.9	+1.1 / -0.8
Total systematic uncert.	+23 / -20	+22 / -19
Data statistics	$\pm 16$	$\pm 15$
Total	+28 / -25	+27 / -24



# ATLAS

$\sqrt{s} = 13 \text{ TeV}, 36.1 - 79.8 \text{ fb}^{-1}$

$m_H = 125.09 \text{ GeV}, |y_H| < 2.5$

