

2HDM Type-II, $d\sigma/dm_{Zh}$, LHC at 13 TeV, (gg \rightarrow Z + A \rightarrow Zh) process

Hybrid basis:

$$m_A = 364.29 \text{ GeV}/c^2$$

$$\Gamma_A = 2.853 \text{ GeV}$$

$$\cos(\beta-\alpha) = 0.49$$

$$\tan(\beta) = 3.72$$

$$m_h = 125.00 \text{ GeV}/c^2$$

$$m_H = 500.00 \text{ GeV}/c^2$$

$$m_{H^{\pm}} = 500.00 \text{ GeV}/c^2$$

$$Z_4 = -2.88$$

$$Z_5 = 0.99$$

$$Z_7 = 0.00$$

$$\sigma(Z) = 35.11 \text{ fb}$$

$$\sigma(A) = 352.86 \text{ fb}$$

$$\sigma(A+Z) = 408.44 \text{ fb}$$

$$\sigma(\text{int}) = 20.47 \text{ fb}$$

