

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

Hybrid basis:

$$m_A = 221.43 \text{ GeV}/c^2$$

$$\Gamma_A = 0.033 \text{ GeV}$$

$$\cos(\beta-\alpha) = 0.10$$

$$\tan(\beta) = 2.61$$

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

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

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

$$Z_4 = -3.36$$

$$Z_5 = 3.27$$

$$Z_7 = 0.00$$

$$\sigma(Z) = 45.95 \text{ fb}$$

$$\sigma(A) = 2.62 \text{ fb}$$

$$\sigma(A+Z) = 54.04 \text{ fb}$$

$$\sigma(\text{int}) = 5.51 \text{ fb}$$

