

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

Hybrid basis:

$$m_A = 150.00 \text{ GeV}/c^2$$

$$\Gamma_A = 0.023 \text{ GeV}$$

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

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

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

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

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

$$Z_4 = -3.79$$

$$Z_5 = 3.71$$

$$Z_7 = 0.00$$

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

$$\sigma(A) = 0.10 \text{ fb}$$

$$\sigma(A+Z) = 50.27 \text{ fb}$$

$$\sigma(\text{int}) = 4.23 \text{ fb}$$

