Example models learned when optimizing  $p_0$  (# bins = 5) seed 0 seed 1 seed 2 seed 3 seed 4 5.0 5.0 -5.0 5 2.5 2.5 2.5 0.0 0.0 0.0 seed 5 seed 6 seed 7 seed 8 sig 5.0 -5.0 bkg nominal 5.0 5 bkg\_up 2.5 2.5 bkg\_down 2.5 0.0 0.0 0.0