

| Category            | Parameters                                                   | Signal region | Control region |
|---------------------|--------------------------------------------------------------|---------------|----------------|
| $\mu\mu$ resonances | $M, \Sigma, \Gamma$                                          | Shared        |                |
| $\mu\mu$ continuum  | $\lambda_{\mu\mu}^i$                                         | Independent   | Independent    |
| $\mu\mu\tau\tau$    | $a_{\text{erf}}, b_{\text{erf}}, \lambda_{\mu\mu\tau\tau}^i$ | Independent   | –              |
| Normalizations      | $N_{\psi(2S)} / N_{J/\psi}$                                  | Shared        |                |
|                     | $N_{Y(2S)} / N_{Y(1S)}$                                      | Shared        |                |
|                     | $N_{Y(3S)} / N_{Y(1S)}$                                      | Shared        |                |
|                     | $N_{Y(1S)+Y(2S)+Y(3S)} / N_{\text{continuum}}$               | Independent   | Independent    |
|                     | $N_{J/\psi+\psi(2S)} / N_{\text{continuum}}$                 | Independent   | Independent    |