$$N = \sigma_{\text{tot}} \times \mathcal{L}_{\text{int}} \times \sum_i A\epsilon_{a\to i} \times \frac{P_{(a,a)}}{\sum_{(a,a)} P_{(a,a)}} \times \left(\frac{\text{BR}_{a\to i}}{\sum_a \text{BR}_{a\to i}} \right)^2$$

N	:	expected number of events
σ_{tot}	:	total cross section
$\mathcal{L}_{\text{int}}$	:	integrated luminosity
$A\epsilon_{a\to i}$	:	acceptance times efficiency for SM events
$P_{(a,a)}$	:	(a,a)-production fraction
$\text{BR}_{a\to i}$	:	branching fraction for a to decay into i