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

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