

Region	Purpose	Selection Criteria
Prompt Control Region (CR I)	Validation of MC Simulation	$ d_0 _{e,\mu} < 100 \mu\text{m}$
Displaced Control Region (CR II)	Data-driven HF Estimation	$100 < d_0 _{e,\mu} < 200 \mu\text{m}$
Displaced Electron Region (CR III)	Validation of HF Estimation	$ d_0 _e > 100 \mu\text{m}$ $ d_0 _\mu < 200 \mu\text{m}$
Displaced Muon Region (CR IV)	Validation of HF Estimation	$ d_0 _\mu > 100 \mu\text{m}$ $ d_0 _e < 200 \mu\text{m}$
Search Region I (SR I)	Loose Search Region	$ d_0 _{e,\mu} > 200 \mu\text{m}$ not in SR II
Search Region II (SR II)	Medium Search Region	$ d_0 _{e,\mu} > 500 \mu\text{m}$ not in SR III
Search Region III (SR III)	Tight Search Region	$ d_0 _{e,\mu} > 1000 \mu\text{m}$