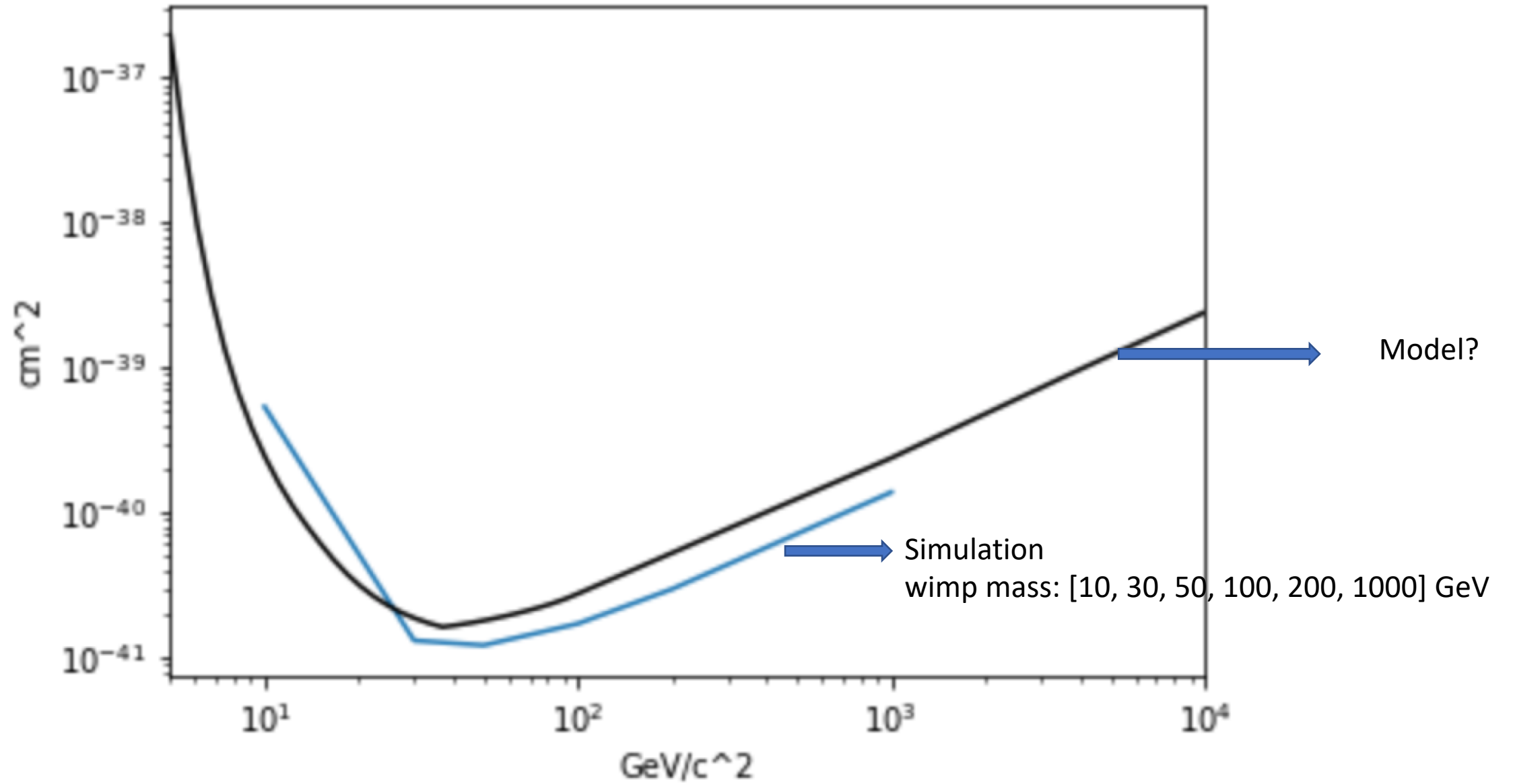


WIMP limit graph

Yitong Liu

10/25/2018



Info for the black line

5 GeV	10 GeV	10^2 GeV	10^3 GeV	10^4 GeV
$1.98e^{-37}$ cm ²	$2.37e^{-40}$ cm ²	$2.75e^{-41}$ cm ²	$2.38e^{-40}$ cm ²	$2.41e^{-39}$ cm ²

Base model(Xenon 1T)

- WIMP Parameters:

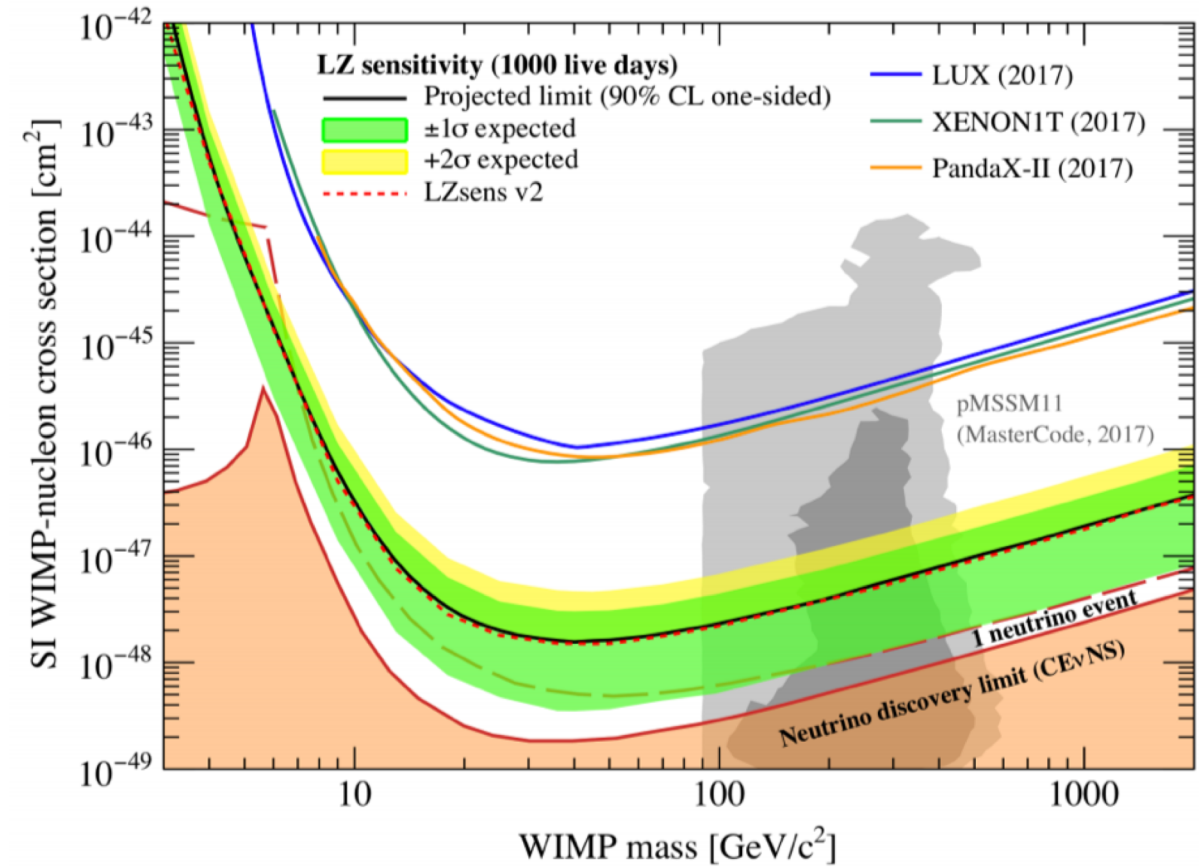
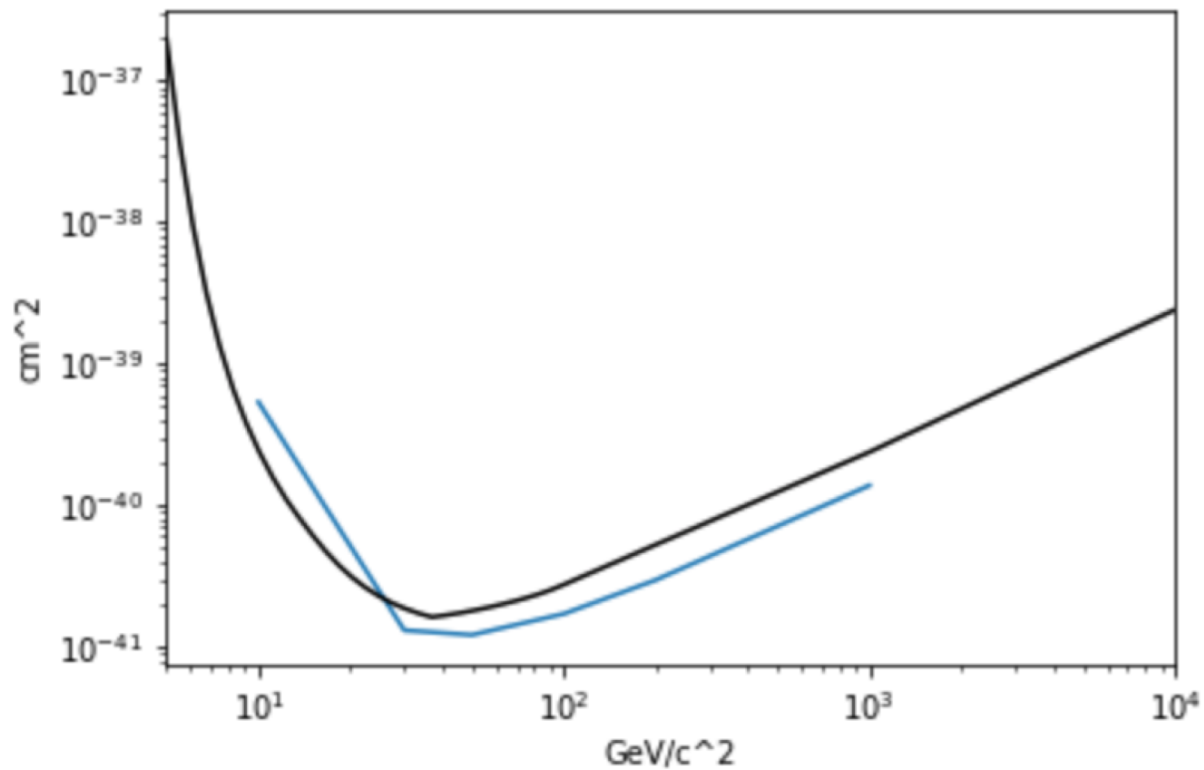
Detection	Sigma_nucleon	Wimp mass	NR cutoff	ER cutoff	WIMP interaction
Elastic NR	$1e^{-45} \text{ cm}^2$ → $10 e^{-40} \text{ cm}^2$	50 Gev/c ²	1 keV	0.18keV	SI → SD_n_central

- Detector parameters:

Fiducial mass	Electron lifetime	Drift velocity
1042 kg	452 us	1.44 m/ms

Pdf_sampling_multiplier:1->0.1

Wimp limits curve



Questions?

- What other parameters do I need to know/change?