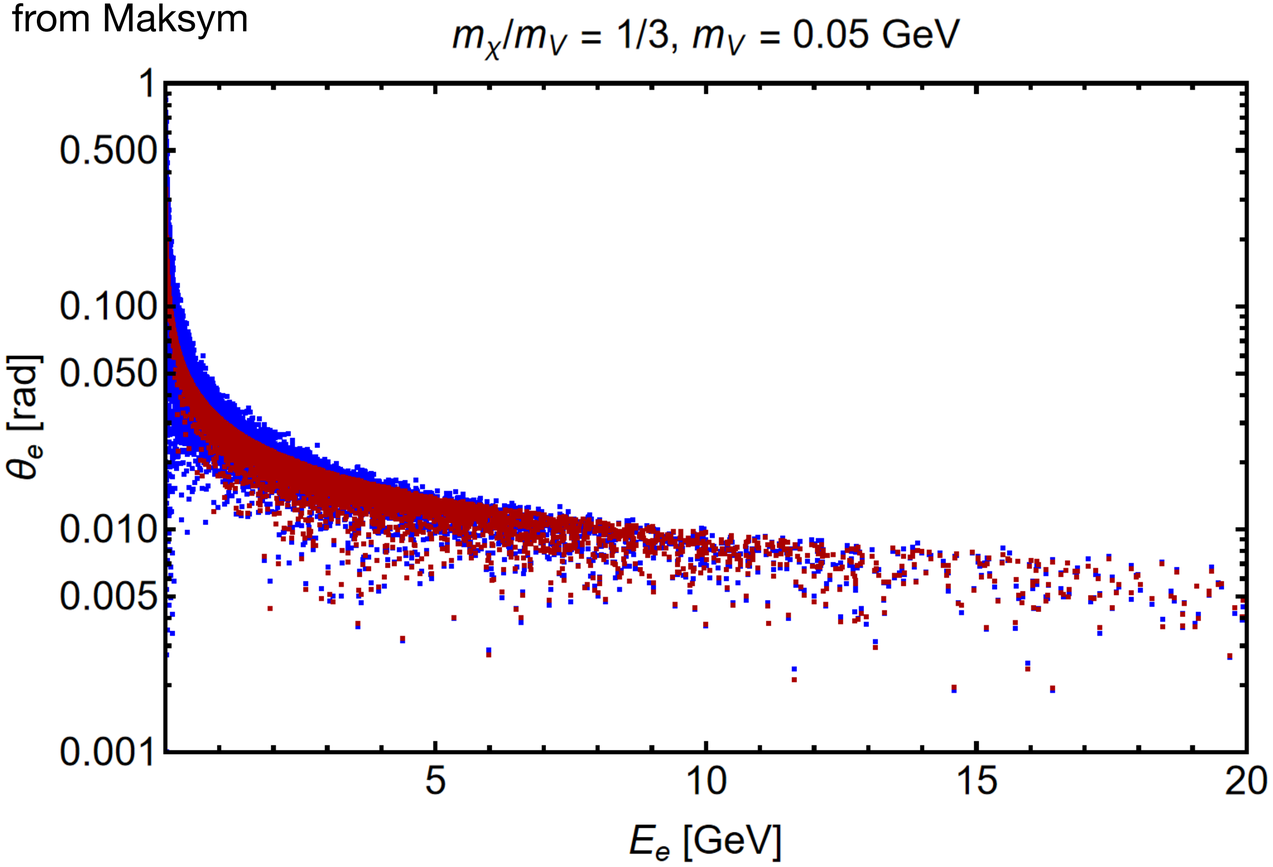
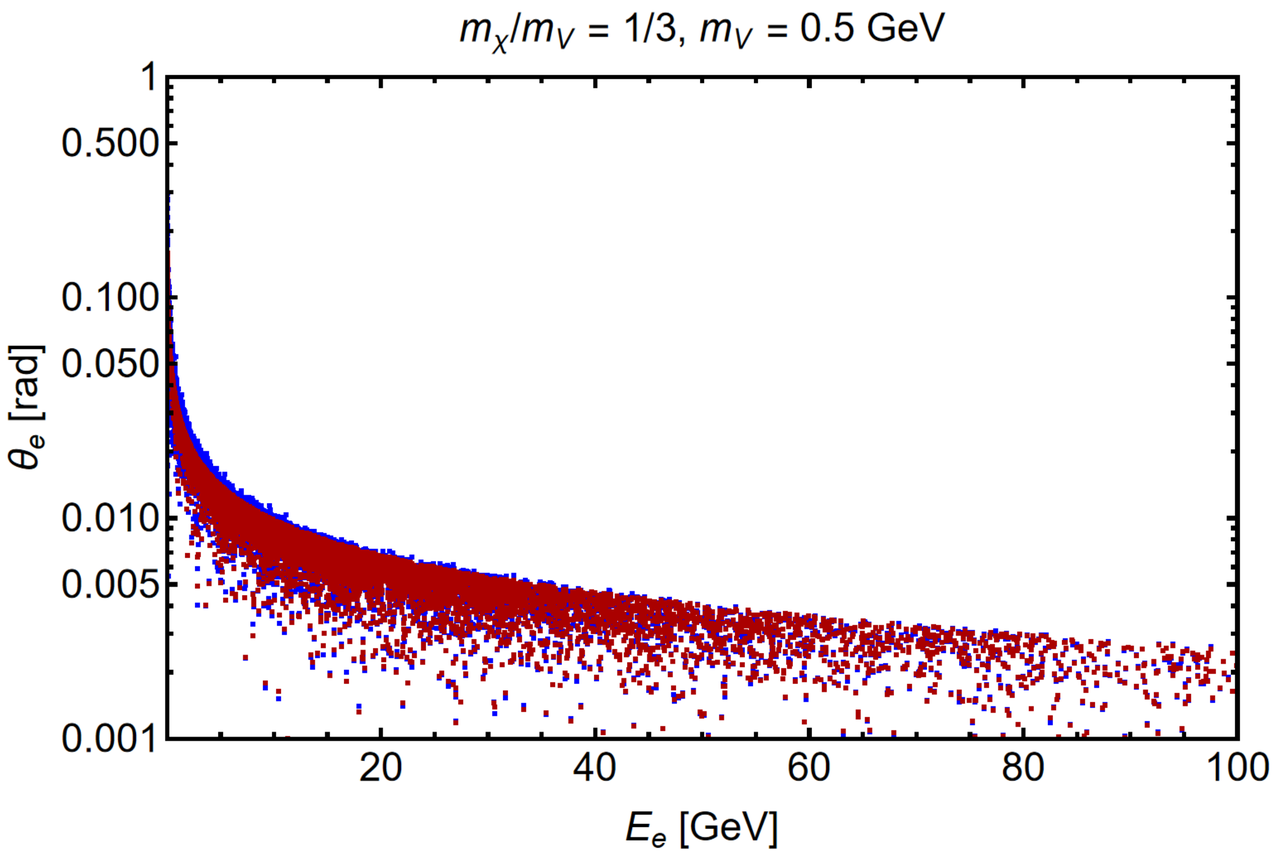
from Maksym





The plot shows the distribution of the recoil electron's energy (E_e) versus its angle (θ_e) relative to the incoming χ.
$m_\chi = m_V/3$, with V as the mediator (dark photon)

Red dots: True distribution

Blue dots: Distribution smeared using the formula:
$\theta_e \rightarrow |\theta_e(1 + \delta)|$,
where δ follows a normal distribution with dispersion **$15\%/\sqrt{(E_e/\text{GeV})}$**.

For SND, an outdated setup with $z \in (25, 27.5)$ m and $\Delta x * \Delta y = 0.4 * 0.4$ m² was used.