

DUNE supernova sensitivities to Lorentz and CPT violation

SME coefficient

$$(c_{\text{of}}^{(4)})_{jm}$$

jm

00

10

11

20

21

22

$$(a_{\text{of}}^{(5)})_{jm}$$

[GeV⁻¹]

00

10

11

20

21

22

30

31

32

33

$$(c_{\text{of}}^{(6)})_{jm}$$

[GeV⁻²]

00

10

11

20

21

22

30

31

32

33

40

41

42

43

44

■ current bound
■ DUNE improvement
D = 50 kpc
Spectrum:
E=10-60 MeV

10⁻¹¹

10⁻¹⁰

10⁻⁹

10⁻⁸

10⁻⁷