

NOvA event rates and efficiency
for 8.85×10^{20} POT, NH, $\Delta_{CP} = -\pi/2$

I. ν_e mode

Efficiency: 0.62

Signal: 48

Background:

Total bckg	ν_μ CC	ν_μ NC	ν_e beam
20.5	1.1	6.6	7.1

II. anti- ν_e mode

Efficiency: 0.67

Signal: 6.47

Background:

Total bckg	ν_μ CC	ν_μ NC	ν_e beam
5.6	0.4	2.5	2.7

III. ν_μ mode

Efficiency: 0.68

Signal: 129

Background:

Total bckg	ν_μ NC	Cosmic
9.29	3.46	5.83

IV. Anti- ν_μ mode

Efficiency: 0.62

Signal: 39

Background:

Total bckg	ν_μ NC	Cosmic
	1.2	

NOvA event rates and efficiency
for 53×10^{20} POT, NH , $\Delta_{\text{CP}} = -\pi/2$
(operation until 2024)

I. ν_e mode

Efficiency: 0.62

Signal: 288

Background:

Total bckg	ν_μ CC	ν_μ NC	ν_e beam
20.5	6.6	39.6	42.6

II. anti- ν_e mode

Efficiency: 0.67

Signal: 38.82

Background:

Total bckg	ν_μ CC	ν_μ NC	ν_e beam
33.6	2.4	15	16.2

III. ν_μ mode

Efficiency: 0.68

Signal: 774

Background:

Total bckg	ν_μ NC	Cosmic
9.29	20.76	34.98

IV. Anti- ν_μ mode

Efficiency: 0.62

Signal: 234

Background:

Total bckg	ν_μ NC	Cosmic
	7.2	

nova event rates (5% systematic uncertainties)
globes -p '0.6013,0.1479,0.7854,-1.57,0.000076,0.0025' -t NOvA.glb

----- #Nu_E_Appearance -----

289.584	289.584		
89.2835	6.636	39.8156	42.832

----- #Nu_Mu_Disappearance -----

775.367	775.367
20.8731	20.8731

----- #Nu_E_Bar_Appearance -----

39.6045	39.6045		
33.2147	2.22107	14.7024	16.2912

----- #Nu_Mu_Bar_Disappearance -----

236.617	236.617
6.99139	6.99139