

```

ListLogPlot[
{{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.}, {-8.5, 0.}, {-8., 0.}, {-7.5, 0.},
{-7., 0.}, {-6.5, 0.}, {-6., 0.}, {-5.5, 0.}, {-5., 0.0794854}, {-4.5, 0.149595},
{-4., 0.100205}, {-3.5, 0.163855}, {-3., 0.193602}, {-2.5, 0.198979},
{-2., 0.224085}, {-1.5, 0.40484}, {-1., 0.408739}, {-0.5, 0.299819},
{0., 0.3131}, {0.5, ComplexInfinity}, {1., ComplexInfinity},
{1.5, ComplexInfinity}, {2., ComplexInfinity}, {2.5, ComplexInfinity},
{3., ComplexInfinity}, {3.5, ComplexInfinity}, {4., ComplexInfinity},
{4.5, ComplexInfinity}, {5., ComplexInfinity}, {5.5, ComplexInfinity},
{6., ComplexInfinity}, {6.5, ComplexInfinity}, {7., ComplexInfinity},
{7.5, ComplexInfinity}, {8., ComplexInfinity}, {8.5, ComplexInfinity},
{9., ComplexInfinity}, {9.5, ComplexInfinity}, {10., ComplexInfinity}},
{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.}, {-8.5, 0.}, {-8., 0.}, {-7.5, 0.},
{-7., 0.}, {-6.5, 0.}, {-6., 0.}, {-5.5, 0.}, {-5., 0.547411}, {-4.5, 0.632703},
{-4., 0.779129}, {-3.5, 0.83085}, {-3., 0.918543}, {-2.5, 1.00374}, {-2., 0.970368},
{-1.5, 0.992907}, {-1., 1.02598}, {-0.5, 1.00573}, {0., 1.01168}, {0.5, Indeterminate},
{1., Indeterminate}, {1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate},
{3., Indeterminate}, {3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate},
{5., Indeterminate}, {5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate},
{7., Indeterminate}, {7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}},
{{-10.5, 1.}, {-10., 1.}, {-9.5, 1.}, {-9., 1.}, {-8.5, 1.}, {-8., 1.}, {-7.5, 1.},
{-7., 1.}, {-6.5, 1.}, {-6., 1.}, {-5.5, 1.}, {-5., 1.}, {-4.5, 1.}, {-4., 1.},
{-3.5, 1.}, {-3., 1.}, {-2.5, 1.}, {-2., 1.}, {-1.5, 1.}, {-1., 1.}, {-0.5, 1.},
{0., 1.}, {0.5, Indeterminate}, {1., Indeterminate}, {1.5, Indeterminate},
{2., Indeterminate}, {2.5, Indeterminate}, {3., Indeterminate}, {3.5, Indeterminate},
{4., Indeterminate}, {4.5, Indeterminate}, {5., Indeterminate}, {5.5, Indeterminate},
{6., Indeterminate}, {6.5, Indeterminate}, {7., Indeterminate},
{7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}},
{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.}, {-8.5, 0.}, {-8., 0.}, {-7.5, 0.},
{-7., 0.}, {-6.5, 0.}, {-6., 0.}, {-5.5, 0.}, {-5., 0.6386}, {-4.5, 0.752083},
{-4., 0.842427}, {-3.5, 0.923444}, {-3., 0.993557}, {-2.5, 1.04767}, {-2., 1.0029},
{-1.5, 1.01016}, {-1., 1.04221}, {-0.5, 1.0269}, {0., 1.01542}, {0.5, Indeterminate},
{1., Indeterminate}, {1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate},
{3., Indeterminate}, {3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate},
{5., Indeterminate}, {5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate},
{7., Indeterminate}, {7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}},
{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.}, {-8.5, 0.}, {-8., 0.},
{-7.5, 0.}, {-7., 0.}, {-6.5, 0.}, {-6., 0.}, {-5.5, 0.}, {-5., 0.559189},
{-4.5, 0.601382}, {-4., 0.793074}, {-3.5, 0.845344}, {-3., 0.819256},
{-2.5, 0.914185}, {-2., 0.978796}, {-1.5, 1.05308}, {-1., 0.950903},
{-0.5, 0.995068}, {0., 1.09172}, {0.5, ComplexInfinity}, {1., ComplexInfinity},
{1.5, ComplexInfinity}, {2., ComplexInfinity}, {2.5, ComplexInfinity},
{3., ComplexInfinity}, {3.5, ComplexInfinity}, {4., ComplexInfinity},
{4.5, ComplexInfinity}, {5., ComplexInfinity}, {5.5, ComplexInfinity},
{6., ComplexInfinity}, {6.5, ComplexInfinity}, {7., ComplexInfinity},
{7.5, ComplexInfinity}, {8., ComplexInfinity}, {8.5, ComplexInfinity},
{9., ComplexInfinity}, {9.5, ComplexInfinity}, {10., ComplexInfinity}},
{{-10.5, 0.966329}, {-10., 0.871468}, {-9.5, 0.812904}, {-9., 0.995799},
{-8.5, 0.875786}, {-8., 0.987906}, {-7.5, 0.93799}, {-7., 1.01824}, {-6.5, 0.96311},
{-6., 0.913863}, {-5.5, 0.959218}, {-5., 0.965193}, {-4.5, 0.951974}, {-4., 1.01205},
{-3.5, 0.955481}, {-3., 0.986603}, {-2.5, 0.98158}, {-2., 0.984446}, {-1.5, 0.970314},
{-1., 0.994339}, {-0.5, 0.99656}, {0., 0.980549}, {0.5, Indeterminate},
{1., Indeterminate}, {1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate},
{3., Indeterminate}, {3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate},
{5., Indeterminate}, {5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate},
{7., Indeterminate}, {7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}},
{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.00777471}, {-8.5, 0.00595134},
{-8., 0.01586}, {-7.5, 0.00834419}, {-7., 0.0091186}, {-6.5, 0.00727193},
{-6., 0.00963973}, {-5.5, 0.0104109}, {-5., 0.954154}, {-4.5, 0.964694},
{-4., 1.05403}, {-3.5, 0.996557}, {-3., 1.03822}, {-2.5, 1.027}, {-2., 1.03105},
{-1.5, 1.01879}, {-1., 1.03017}, {-0.5, 1.02937}, {0., 1.02182}, {0.5, Indeterminate},
{1., Indeterminate}, {1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate},
{3., Indeterminate}, {3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate},
{5., Indeterminate}, {5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate},
{7., Indeterminate}, {7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}},
{{-10.5, 0.}, {-10., 0.}, {-9.5, 0.}, {-9., 0.}, {-8.5, 0.}, {-8., 0.},
{-7.5, 0.00133051}, {-7., 0.000484665}, {-6.5, 0.}, {-6., 0.}, {-5.5, 0.000442682},
{-5., 0.685382}, {-4.5, 0.776363}, {-4., 0.890812}, {-3.5, 0.939011},
{-3., 1.01369}, {-2.5, 1.0249}, {-2., 1.01956}, {-1.5, 1.02708}, {-1., 1.03501},
{-0.5, 1.03866}, {0., 1.01814}, {0.5, Indeterminate}, {1., Indeterminate},
{1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate}, {3., Indeterminate},
{3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate}, {5., Indeterminate},
{5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate}, {7., Indeterminate},
{7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}}, Null,
{{-10.5, 0.}, {-10., 0.00820229}, {-9.5, 0.}, {-9., 0.00250693}, {-8.5, 0.},
{-8., 0.00306841}, {-7.5, 0.00134528}, {-7., 0.000980089}, {-6.5, 0.0031655},
{-6., 0.00133213}, {-5.5, 0.00223798}, {-5., 0.848372}, {-4.5, 0.873491},
{-4., 0.950551}, {-3.5, 0.959792}, {-3., 1.01111}, {-2.5, 1.01786}, {-2., 1.00636},
{-1.5, 0.999828}, {-1., 1.02692}, {-0.5, 1.02317}, {0., 1.00356}, {0.5, Indeterminate},
{1., Indeterminate}, {1.5, Indeterminate}, {2., Indeterminate}, {2.5, Indeterminate},
{3., Indeterminate}, {3.5, Indeterminate}, {4., Indeterminate}, {4.5, Indeterminate},
{5., Indeterminate}, {5.5, Indeterminate}, {6., Indeterminate}, {6.5, Indeterminate},
{7., Indeterminate}, {7.5, Indeterminate}, {8., Indeterminate}, {8.5, Indeterminate},
{9., Indeterminate}, {9.5, Indeterminate}, {10., Indeterminate}}},
Joined → True, InterpolationOrder → 0,
PlotLabel → ttbar ratio with green, i.e., mu mu → tt mumu (eta mu+ < 0.5),
PlotLegends → {mu mu → tt mumu (emicut 5), mu mu → tt mumu (eta mu+ < 0.5 && emicut = 5) ,
mu mu → tt mumu (eta mu+ < 0.5), mu mu → tt mumu (eta mu+ < 0.5 && emicut = 5). HS9 ,
mu mu → tt mumu (emicut 5). HS9, mu mu → tt mumu (eta mu+ < 0.5). HS9,
mu mu → tt mumu (eta mu+ < 0.5 && (for 90% of events emicut = 5)) ,
mu mu → tt mumu (eta mu+ < 0.5 && (for 98% of events emicut = 5)) ,
mu mu → tt mumu (eta mu+ < 0.5 && (for 95% of events emicut = 5)) },
AxesLabel → {eta mu+, σ[pb]}, PlotStyle → {Automatic, Dashing[{0, Small}],
Dashing[{Small, Small}], Dashing[{0, Small, Small, Small}]}]

```