In[1319]:=
$$f[c\_, pt\_, q\_, T\_, \mu\_, y\_, mo\_] := c\, pt\, \text{Sqrt}\left[pt^2 + mo^2\right] \text{Cosh}[y] \left(1 + (q-1)\, \frac{1}{T} \left(\text{Sqrt}\left[pt^2 + mo^2\right] \text{Cosh}[y] - \mu\right)\right)^{1/(1-q)}$$

In[1320]:=
```
pt1 = {{0.05, 0.18341}, {0.1, 0.47989}, {0.15, 0.77918}, {0.2, 0.94437},
  {0.25, 1.00896}, {0.3, 0.8743}, {0.35, 0.73902}, {0.4, 0.64504}, {0.45, 0.56198},
  {0.5, 0.46076}, {0.55, 0.40769}, {0.6, 0.26814}, {0.7, 0.19433},
  {0.8, 0.10712}, {0.9, 0.0566}, {1, 0.04195}, {1.25, 0.02304}, {1.5, 0.00325}}
```

Out[1320]=
```
{{0.05, 0.18341}, {0.1, 0.47989}, {0.15, 0.77918}, {0.2, 0.94437}, {0.25, 1.00896},
 {0.3, 0.8743}, {0.35, 0.73902}, {0.4, 0.64504}, {0.45, 0.56198},
 {0.5, 0.46076}, {0.55, 0.40769}, {0.6, 0.26814}, {0.7, 0.19433},
 {0.8, 0.10712}, {0.9, 0.0566}, {1, 0.04195}, {1.25, 0.02304}, {1.5, 0.00325}}
```

In[1321]:=
```
pt1y2 = {{0.05, 0.09927}, {0.1, 0.47149},
  {0.15, 0.71274}, {0.2, 0.86242},
  {0.25, 0.9637}, {0.3, 0.86979},
  {0.35, 0.72327}, {0.4, 0.57446},
  {0.45, 0.55643}, {0.5, 0.46663},
  {0.55, 0.34765}, {0.6, 0.30308},
  {0.7, 0.18683}, {0.8, 0.14013},
  {0.9, 0.0769}, {1, 0.03567},
  {1.25, 0.02002}, {1.5, 0.00403}}
```

Out[1321]=
```
{{0.05, 0.09927}, {0.1, 0.47149}, {0.15, 0.71274}, {0.2, 0.86242}, {0.25, 0.9637},
 {0.3, 0.86979}, {0.35, 0.72327}, {0.4, 0.57446}, {0.45, 0.55643},
 {0.5, 0.46663}, {0.55, 0.34765}, {0.6, 0.30308}, {0.7, 0.18683},
 {0.8, 0.14013}, {0.9, 0.0769}, {1, 0.03567}, {1.25, 0.02002}, {1.5, 0.00403}}
```

In[1322]:=
```
pt1y3 = {{0.05, 0.1066
    }, {0.1, 0.53873
    }, {0.15, 0.74674
    }, {0.2, 0.89348
    }, {0.25, 0.81617
    }, {0.3, 0.78523
    }, {0.35, 0.63538
    }, {0.4, 0.6026
    }, {0.45, 0.4986
    }, {0.5, 0.3956
    }, {0.55, 0.30077
    }, {0.6, 0.24695
    }, {0.7, 0.20177
    }, {0.8, 0.1176
    }, {0.9, 0.06453
    }, {1, 0.03423
    }, {1.25, 0.01611}, {1.5, 0.00284}}
```

Out[1322]=
```
{{0.05, 0.1066}, {0.1, 0.53873}, {0.15, 0.74674}, {0.2, 0.89348},
 {0.25, 0.81617}, {0.3, 0.78523}, {0.35, 0.63538}, {0.4, 0.6026},
 {0.45, 0.4986}, {0.5, 0.3956}, {0.55, 0.30077}, {0.6, 0.24695}, {0.7, 0.20177},
 {0.8, 0.1176}, {0.9, 0.06453}, {1, 0.03423}, {1.25, 0.01611}, {1.5, 0.00284}}
```

In[1323]:=
```
pt1y5 = {{0.05, 0.12887

    }, {0.1, 0.40839
    }, {0.15, 0.58562
    }, {0.2, 0.60641
    }, {0.25, 0.67261
    }, {0.3, 0.61973
    }, {0.35, 0.52341
    }, {0.4, 0.44729
    }, {0.45, 0.31733
    }, {0.5, 0.28752
    }, {0.55, 0.27691
    }, {0.6, 0.22262
    }, {0.7, 0.12563
    }, {0.8, 0.06927
    }, {0.9, 0.0444
    }, {1, 0.01113
    }, {1.25, 0.00771}, {1.5`, 0.00147}}
```

Out[1323]=
```
{{0.05, 0.12887}, {0.1, 0.40839}, {0.15, 0.58562}, {0.2, 0.60641}, {0.25, 0.67261},
 {0.3, 0.61973}, {0.35, 0.52341}, {0.4, 0.44729}, {0.45, 0.31733},
 {0.5, 0.28752}, {0.55, 0.27691}, {0.6, 0.22262}, {0.7, 0.12563},
 {0.8, 0.06927}, {0.9, 0.0444}, {1, 0.01113}, {1.25, 0.00771}, {1.5, 0.00147}}
```

In[1324]:=
```
pt1y7 = {{0.05, 0.13808

    }, {0.1, 0.25155
    }, {0.15, 0.43746
    }, {0.2, 0.52065
    }, {0.25, 0.48944
    }, {0.3, 0.39177
    }, {0.35, 0.28326
    }, {0.4, 0.26572
    }, {0.45, 0.20684
    }, {0.5, 0.14086
    }, {0.55, 0.13302
    }, {0.6, 0.10065
    }, {0.7, 0.06606
    }, {0.8, 0.03526}, {0.9, 0.0112
    }, {1, 0.00465
    }, {1.25, 0.00063}}
```

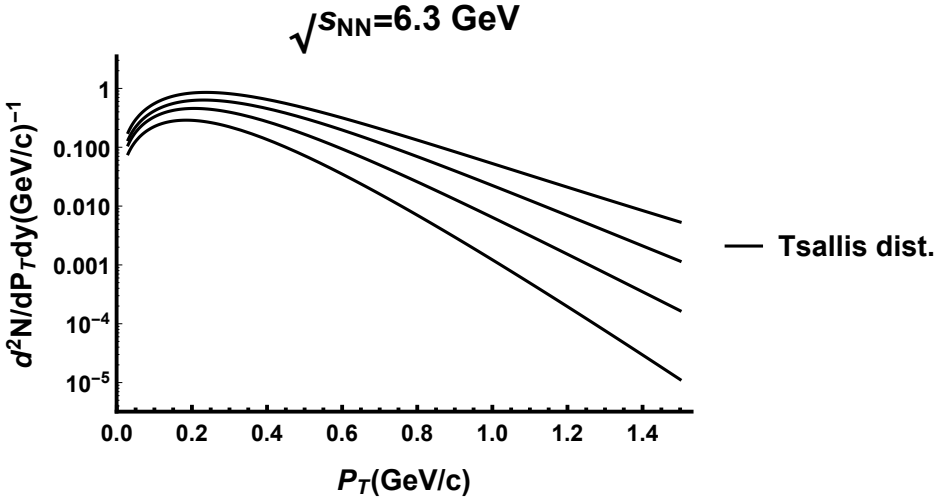
Out[1324]=
```
{{0.05, 0.13808}, {0.1, 0.25155}, {0.15, 0.43746}, {0.2, 0.52065},
 {0.25, 0.48944}, {0.3, 0.39177}, {0.35, 0.28326}, {0.4, 0.26572},
 {0.45, 0.20684}, {0.5, 0.14086}, {0.55, 0.13302}, {0.6, 0.10065},
 {0.7, 0.06606}, {0.8, 0.03526}, {0.9, 0.0112}, {1, 0.00465}, {1.25, 0.00063}}
```

In[1325]:=
```
pt1y9 = {{0.05, 0.08704}, {0.1, 0.1871
    }, {0.15, 0.29605
    }, {0.2, 0.3019
    }, {0.25, 0.29439
    }, {0.3, 0.23287
    }, {0.35, 0.17683
    }, {0.4, 0.12207
    }, {0.45, 0.06683
    }, {0.5, 0.06188
    }, {0.55, 0.04259
    }, {0.6, 0.03621
    }, {0.7, 0.01093
    }, {0.8, 0.00474}}
```

Out[1325]=
```
{{0.05, 0.08704}, {0.1, 0.1871}, {0.15, 0.29605}, {0.2, 0.3019}, {0.25, 0.29439},
 {0.3, 0.23287}, {0.35, 0.17683}, {0.4, 0.12207}, {0.45, 0.06683},
 {0.5, 0.06188}, {0.55, 0.04259}, {0.6, 0.03621}, {0.7, 0.01093}, {0.8, 0.00474}}
```

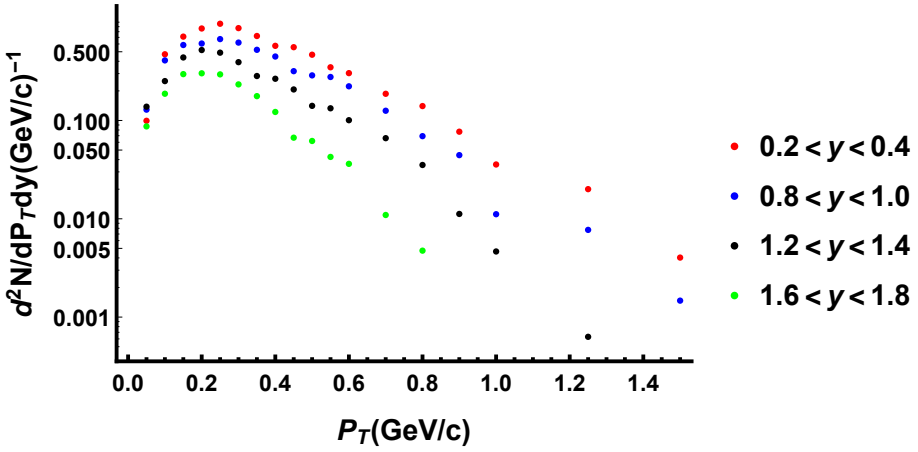
In[1326]:=
```
h1 = LogPlot[{f[c, pt, 1.044, T, μ, 0.2, 0.13957018`] /.
    {c → 0.3857458, T → 0.13982572, μ → 0.7350299},
   f[c, pt, 1.018`, T, μ, 0.8`, 0.13957018`] /. {c → 0.5568387607684782`,
    T → 0.16005238295798618`, μ → 0.7697246677199624`},
   f[c, pt, 1.0101`, T, μ, 1.2`, 0.13957018`] /.
    {c → 0.5567164829552771`, T → 0.18738842121705787`, μ → 0.8545417061730067`},
   f[c, pt, 1.0004`, T, μ, 1.6`, 0.13957018`] /. {c → 0.7702389746453002`,
    T → 0.23223361805733653`, μ → 0.8806923990272455`}},
  {pt, 0.03, 1.5}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dy (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "√s_NN=6.3 GeV",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1326]=



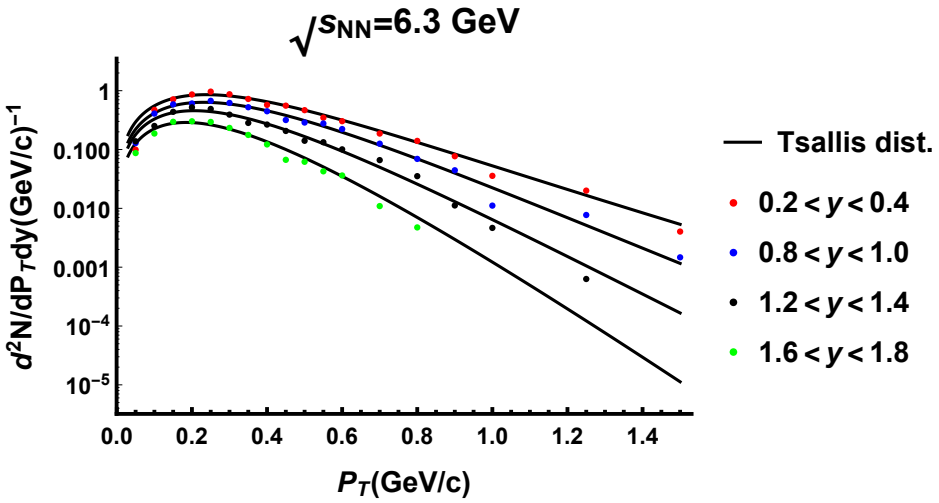
In[1327]:=
```
hd63 =
 ListLogPlot[{pt1y2, pt1y5, pt1y7, pt1y9}, PlotStyle → {Red, Blue, Black , Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}}, PlotStyle →
   {Red, Blue, Black , Gray, Green}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLegends →
   Placed[{"0.2 < y < 0.4", "0.8 < y < 1.0", "1.2 < y < 1.4", "1.6 < y < 1.8"}, Right],
  FrameLabel → {"PT (GeV/c)", "d2N/dPTdy (GeV/c)-1"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1327]=



In[1328]:=
```
Show[ h1, hd63]
```

Out[1328]=



In[1329]:=
```
pt2 = {{0.05, .21988}, {0.1, .58023}, {0.15, .92196}, {0.2, 1.09543},
   {0.25, 1.08029}, {0.3, 1.037350}, {0.35, 0.88418}, {0.4, 0.77513},
   {0.45, 0.67993}, {0.5, 0.51159}, {0.55, 0.39828}, {0.6, 0.34155}, {0.7, 0.23621},
   {0.8, 0.154080}, {0.9, 0.09064}, {1.0, 0.06372}, {1.25, 0.02168}, {1.5, 0.00728}}
```

Out[1329]=
```
{{0.05, 0.21988}, {0.1, 0.58023}, {0.15, 0.92196}, {0.2, 1.09543}, {0.25, 1.08029},
 {0.3, 1.03735}, {0.35, 0.88418}, {0.4, 0.77513}, {0.45, 0.67993},
 {0.5, 0.51159}, {0.55, 0.39828}, {0.6, 0.34155}, {0.7, 0.23621},
 {0.8, 0.15408}, {0.9, 0.09064}, {1., 0.06372}, {1.25, 0.02168}, {1.5, 0.00728}}
```

In[1330]:=
```
pt2y2 = {{0.025`, 0.17843`}, {0.075`, 0.54225`}, {0.125`, 0.87953`},
   {0.175`, 1.0148`}, {0.225`, 0.99349`}, {0.275`, 0.93572`},
   {0.325`, 0.80337`}, {0.375`, 0.66787`}, {0.425`, 0.55509`}, {0.475`, 0.4746`},
   {0.525`, 0.3996`}, {0.575`, 0.27952`}, {0.65`, 0.21471`}, {0.75`, 0.13343`},
   {0.85`, 0.08778`}, {0.95`, 0.0477`}, {1.125`, 0.01844`}, {1.375`, 0.00448`}}
```

Out[1330]=
```
{{0.025, 0.17843}, {0.075, 0.54225}, {0.125, 0.87953},
 {0.175, 1.0148}, {0.225, 0.99349}, {0.275, 0.93572},
 {0.325, 0.80337}, {0.375, 0.66787}, {0.425, 0.55509}, {0.475, 0.4746},
 {0.525, 0.3996}, {0.575, 0.27952}, {0.65, 0.21471}, {0.75, 0.13343},
 {0.85, 0.08778}, {0.95, 0.0477}, {1.125, 0.01844}, {1.375, 0.00448}}
```

In[1331]:=
```
pt2y3 = {{0.025`, 0.15798`}, {0.075`, 0.47116`}, {0.125`, 0.68712`},
   {0.175`, 0.83555`}, {0.225`, 0.83053`}, {0.275`, 0.77519`}, {0.325`, 0.62601`},
   {0.375`, 0.55485`}, {0.425`, 0.43943`}, {0.475`, 0.36579`},
   {0.525`, 0.31235`}, {0.575`, 0.24876`}, {0.65`, 0.17203`}, {0.75`, 0.10122`},
   {0.85`, 0.06521`}, {0.95`, 0.02896`}, {1.125`, 0.01272`}, {1.375`, 0.00312`}}
```

Out[1331]=
```
{{0.025, 0.15798}, {0.075, 0.47116}, {0.125, 0.68712},
 {0.175, 0.83555}, {0.225, 0.83053}, {0.275, 0.77519},
 {0.325, 0.62601}, {0.375, 0.55485}, {0.425, 0.43943}, {0.475, 0.36579},
 {0.525, 0.31235}, {0.575, 0.24876}, {0.65, 0.17203}, {0.75, 0.10122},
 {0.85, 0.06521}, {0.95, 0.02896}, {1.125, 0.01272}, {1.375, 0.00312}}
```

In[1332]:=
```
pt2y4 = {{0.025`, 0.11903`}, {0.075`, 0.35156`}, {0.125`, 0.51305`},
   {0.175`, 0.59681`}, {0.225`, 0.64145`}, {0.275`, 0.50977`},
   {0.325`, 0.44216`}, {0.375`, 0.35244`}, {0.425`, 0.29825`},
   {0.475`, 0.2264`}, {0.525`, 0.16845`}, {0.575`, 0.12721`}, {0.65`, 0.09546`},
   {0.75`, 0.05077`}, {0.85`, 0.02923`}, {0.95`, 0.01146`}, {1.125`, 0.0029`}}
```

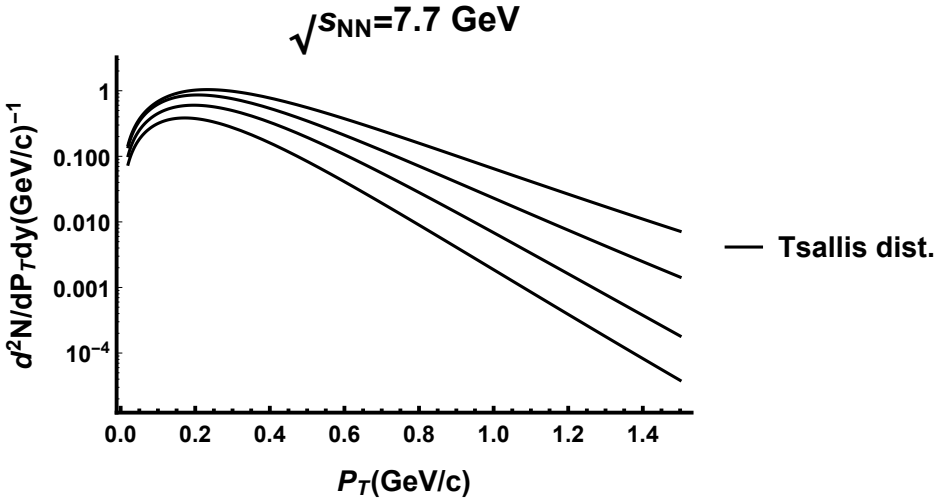
Out[1332]=
```
{{0.025, 0.11903}, {0.075, 0.35156}, {0.125, 0.51305},
 {0.175, 0.59681}, {0.225, 0.64145}, {0.275, 0.50977},
 {0.325, 0.44216}, {0.375, 0.35244}, {0.425, 0.29825},
 {0.475, 0.2264}, {0.525, 0.16845}, {0.575, 0.12721}, {0.65, 0.09546},
 {0.75, 0.05077}, {0.85, 0.02923}, {0.95, 0.01146}, {1.125, 0.0029}}
```

In[1333]:=
```
pt2y5 = {{0.025`, 0.09194`}, {0.075`, 0.25466`}, {0.125`, 0.36836`},
   {0.175`, 0.38733`}, {0.225`, 0.35537`}, {0.275`, 0.3009`}, {0.325`, 0.21883`},
   {0.375`, 0.19531`}, {0.425`, 0.14191`}, {0.475`, 0.1003`}, {0.525`, 0.08404`},
   {0.575`, 0.05887`}, {0.65`, 0.03443`}, {0.75`, 0.01657`}, {0.85`, 0.00427`}}
```

Out[1333]=
```
{{0.025, 0.09194}, {0.075, 0.25466}, {0.125, 0.36836},
 {0.175, 0.38733}, {0.225, 0.35537}, {0.275, 0.3009}, {0.325, 0.21883},
 {0.375, 0.19531}, {0.425, 0.14191}, {0.475, 0.1003}, {0.525, 0.08404},
 {0.575, 0.05887}, {0.65, 0.03443}, {0.75, 0.01657}, {0.85, 0.00427}}
```

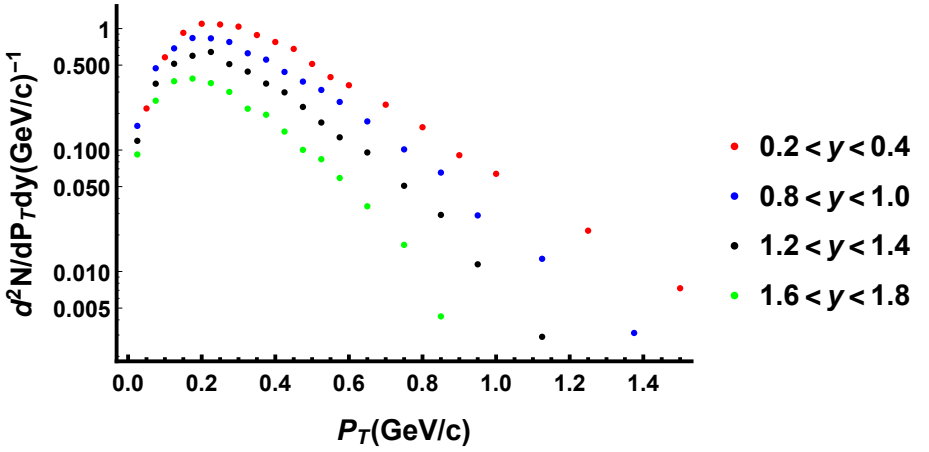
In[1334]:=
```
h2 = LogPlot[{f[c, pt, 1.0515`, T, μ, 0, 0.13957018`] /.
    {c → 0.47764450148796644`, T → 0.13793772046014233`, μ → 0.7178564663408552`},
   f[c, pt, 1.037, T, μ, 0.8`, 0.13957018`] /.
    {c → 0.53064, T → 0.15293241203294905`, μ → 0.789643},
   , f[c, pt, 1.0158`, T, μ, 1.2`, 0.13957018`] /. {c → 0.6301819678934231`,
     T → 0.18068201927709912`, μ → 0.8635942012044611`}, ,
   f[c, pt, 1.022`, T, μ, 1.6`, 0.13957018`] /. {c → 0.6517510281062562`,
     T → 0.22307684257461588`, μ → 0.9631501974201829`}},
  {pt, 0.02, 1.5}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dy (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "√s_NN=7.7 GeV",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1334]=



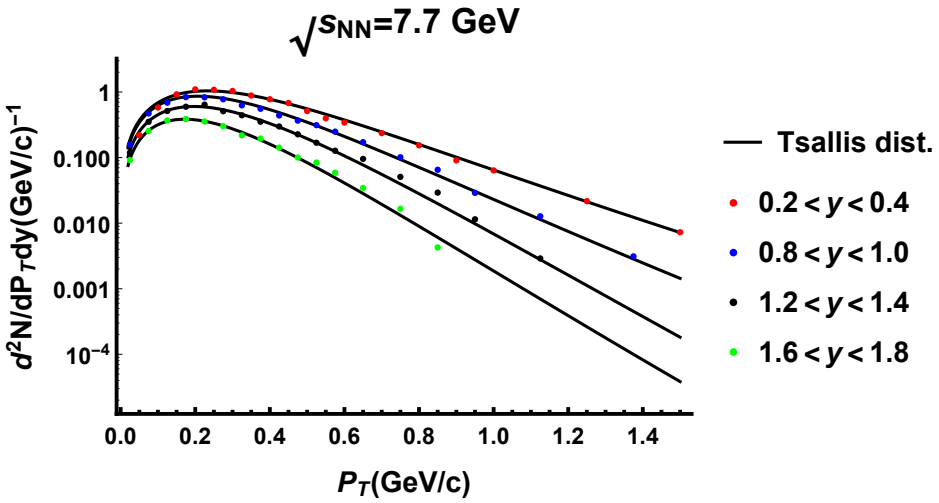
In[1335]:=
```
hd77 =
 ListLogPlot[{pt2, pt2y3, pt2y4, pt2y5}, PlotStyle → {Red, Blue, Black , Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}}, PlotStyle →
   {Red, Blue, Black , Gray, Green}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLegends →
   Placed[{"0.2 < y < 0.4", "0.8 < y < 1.0", "1.2 < y < 1.4", "1.6 < y < 1.8"}, Right],
  FrameLabel → {"PT (GeV/c)", "d2N/dPTdy (GeV/c)-1"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1335]=



In[1336]:=
```
Show[h2, hd77]
```

Out[1336]=



In[1337]:=
```
pt3 = {{0.05, 0.23572}, {0.1, 0.64598}, {0.15, 0.98299}, {0.2, 1.14491},
   {0.25, 1.13361}, {0.3, 1.06402}, {0.35, 0.96565}, {0.4, 0.81597},
   {0.45, 0.67832}, {0.5, 0.57606}, {0.55, 0.43244}, {0.6, 0.36918}, {0.7, 0.26302},
   {0.8, 0.17415}, {0.9, 0.09728}, {1.0, 0.05727}, {1.25, 0.0279}, {1.5, 0.0058}}
```

Out[1337]=
```
{{0.05, 0.23572}, {0.1, 0.64598}, {0.15, 0.98299}, {0.2, 1.14491}, {0.25, 1.13361},
 {0.3, 1.06402}, {0.35, 0.96565}, {0.4, 0.81597}, {0.45, 0.67832},
 {0.5, 0.57606}, {0.55, 0.43244}, {0.6, 0.36918}, {0.7, 0.26302},
 {0.8, 0.17415}, {0.9, 0.09728}, {1., 0.05727}, {1.25, 0.0279}, {1.5, 0.0058}}
```

In[1338]:=
```
pt3y02 = {{0.025`, 0.2318`}, {0.075`, 0.61484`}, {0.125`, 0.95183`},
   {0.175`, 1.12543`}, {0.225`, 1.1504`}, {0.275`, 1.01765`},
   {0.325`, 0.90589`}, {0.375`, 0.82244`}, {0.425`, 0.6503`}, {0.475`, 0.53471`},
   {0.525`, 0.44805`}, {0.575`, 0.35252`}, {0.65`, 0.26192`}, {0.75`, 0.16498`},
   {0.85`, 0.10298`}, {0.95`, 0.06727`}, {1.125`, 0.02666`}, {1.375`, 0.00638`}}
```

Out[1338]=
```
{{0.025, 0.2318}, {0.075, 0.61484}, {0.125, 0.95183},
 {0.175, 1.12543}, {0.225, 1.1504}, {0.275, 1.01765},
 {0.325, 0.90589}, {0.375, 0.82244}, {0.425, 0.6503}, {0.475, 0.53471},
 {0.525, 0.44805}, {0.575, 0.35252}, {0.65, 0.26192}, {0.75, 0.16498},
 {0.85, 0.10298}, {0.95, 0.06727}, {1.125, 0.02666}, {1.375, 0.00638}}
```

In[1339]:=
```
pt3y2 = {{0.025`, 0.19514`}, {0.075`, 0.61309`}, {0.125`, 0.91434`},
   {0.175`, 1.06845`}, {0.225`, 1.10136`}, {0.275`, 1.02677`}, {0.325`, 0.87523`},
   {0.375`, 0.78008`}, {0.425`, 0.60855`}, {0.475`, 0.54555`},
   {0.525`, 0.40878`}, {0.575`, 0.3171`}, {0.65`, 0.24995`}, {0.75`, 0.14375`},
   {0.85`, 0.0966`}, {0.95`, 0.05634`}, {1.125`, 0.02418`}, {1.375`, 0.0062`}}
```

Out[1339]=
```
{{0.025, 0.19514}, {0.075, 0.61309}, {0.125, 0.91434},
 {0.175, 1.06845}, {0.225, 1.10136}, {0.275, 1.02677},
 {0.325, 0.87523}, {0.375, 0.78008}, {0.425, 0.60855}, {0.475, 0.54555},
 {0.525, 0.40878}, {0.575, 0.3171}, {0.65, 0.24995}, {0.75, 0.14375},
 {0.85, 0.0966}, {0.95, 0.05634}, {1.125, 0.02418}, {1.375, 0.0062}}
```

In[1340]:=
```
pt3y3 = {{0.025`, 0.16013`}, {0.075`, 0.50551`}, {0.125`, 0.76371`},
   {0.175`, 0.90637`}, {0.225`, 0.89778`}, {0.275`, 0.86599`}, {0.325`, 0.76484`},
   {0.375`, 0.62101`}, {0.425`, 0.51623`}, {0.475`, 0.41325`},
   {0.525`, 0.36033`}, {0.575`, 0.25617`}, {0.65`, 0.19923`}, {0.75`, 0.11054`},
   {0.85`, 0.06663`}, {0.95`, 0.03775`}, {1.125`, 0.01692`}, {1.375`, 0.00301`}}
```

Out[1340]=
```
{{0.025, 0.16013}, {0.075, 0.50551}, {0.125, 0.76371},
 {0.175, 0.90637}, {0.225, 0.89778}, {0.275, 0.86599},
 {0.325, 0.76484}, {0.375, 0.62101}, {0.425, 0.51623}, {0.475, 0.41325},
 {0.525, 0.36033}, {0.575, 0.25617}, {0.65, 0.19923}, {0.75, 0.11054},
 {0.85, 0.06663}, {0.95, 0.03775}, {1.125, 0.01692}, {1.375, 0.00301}}
```

In[1341]:=
```
pt3y4 = {{0.025`, 0.13819`}, {0.075`, 0.3696`}, {0.125`, 0.59395`},
   {0.175`, 0.6811`}, {0.225`, 0.69893`}, {0.275`, 0.60946`},
   {0.325`, 0.50777`}, {0.375`, 0.4328`}, {0.425`, 0.34978`}, {0.475`, 0.27972`},
   {0.525`, 0.21462`}, {0.575`, 0.19384`}, {0.65`, 0.12257`}, {0.75`, 0.0652`},
   {0.85`, 0.03744`}, {0.95`, 0.01857`}, {1.125`, 0.00577`}, {1.375`, 0.00062`}}
```

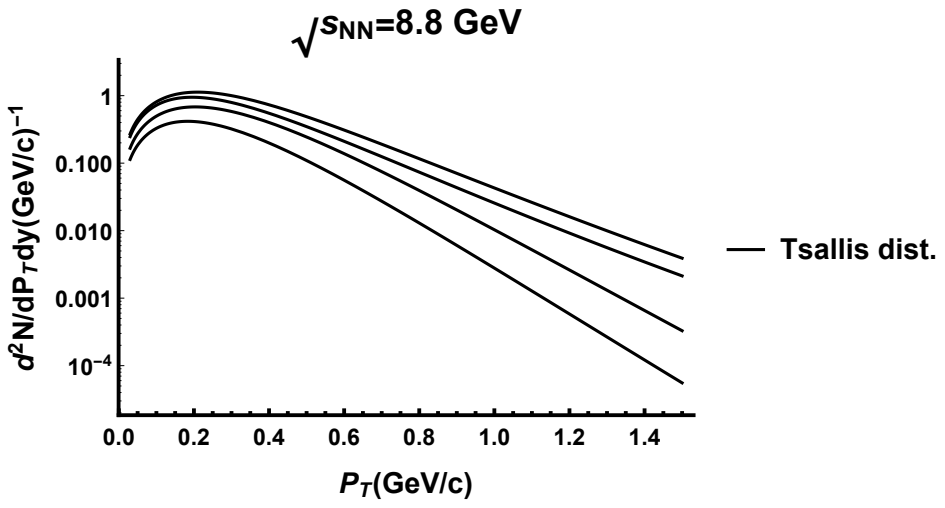
Out[1341]=
```
{{0.025, 0.13819}, {0.075, 0.3696}, {0.125, 0.59395},
 {0.175, 0.6811}, {0.225, 0.69893}, {0.275, 0.60946},
 {0.325, 0.50777}, {0.375, 0.4328}, {0.425, 0.34978}, {0.475, 0.27972},
 {0.525, 0.21462}, {0.575, 0.19384}, {0.65, 0.12257}, {0.75, 0.0652},
 {0.85, 0.03744}, {0.95, 0.01857}, {1.125, 0.00577}, {1.375, 0.00062}}
```

In[1342]:=
```
pt3y5 = {{0.025`, 0.09351`}, {0.075`, 0.28279`}, {0.125`, 0.42578`},
  {0.175`, 0.45274`}, {0.225`, 0.42188`}, {0.275`, 0.37412`},
  {0.325`, 0.29418`}, {0.375`, 0.24523`}, {0.425`, 0.17641`},
  {0.475`, 0.13423`}, {0.525`, 0.09873`}, {0.575`, 0.07894`}, {0.65`, 0.04864`},
  {0.75`, 0.02013`}, {0.85`, 0.00976`}, {0.95`, 0.00349`}, {1.125`, 0.00108`}}
```

Out[1342]=
```
{{0.025, 0.09351}, {0.075, 0.28279}, {0.125, 0.42578},
 {0.175, 0.45274}, {0.225, 0.42188}, {0.275, 0.37412},
 {0.325, 0.29418}, {0.375, 0.24523}, {0.425, 0.17641},
 {0.475, 0.13423}, {0.525, 0.09873}, {0.575, 0.07894}, {0.65, 0.04864},
 {0.75, 0.02013}, {0.85, 0.00976}, {0.95, 0.00349}, {1.125, 0.00108}}
```

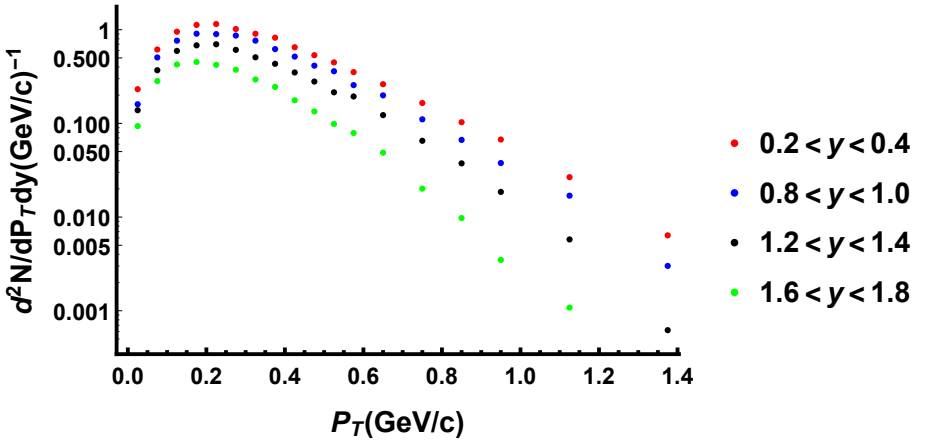
In[1343]:=
```
h3 = LogPlot[{, f[c, pt, 1.052`, T, μ, 0.2`, 0.13957018`] /.
    {c → 0.27072486614874597`, T → 0.1319977163011839`, μ → 0.7705427605438483`},
   f[c, pt, 1.055, T, μ, 0.8`, 0.13957018`] /.
    {c → 0.6988, T → 0.1510428, μ → 0.7481},
   , f[c, pt, 1.017`, T, μ, 1.2`, 0.13957018`] /.
    {c → 0.9536386942847591`, T → 0.18702738718415146`, μ → 0.8256434548861499`},
   f[c, pt, 1.0155, T, μ, 1.6`, 0.13957018`] /.
    {c → 1.0303950322127133`, T → 0.2350112, μ → 0.89914226}},
  {pt, 0.03, 1.5}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dy (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "√s_NN=8.8 GeV",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1343]=



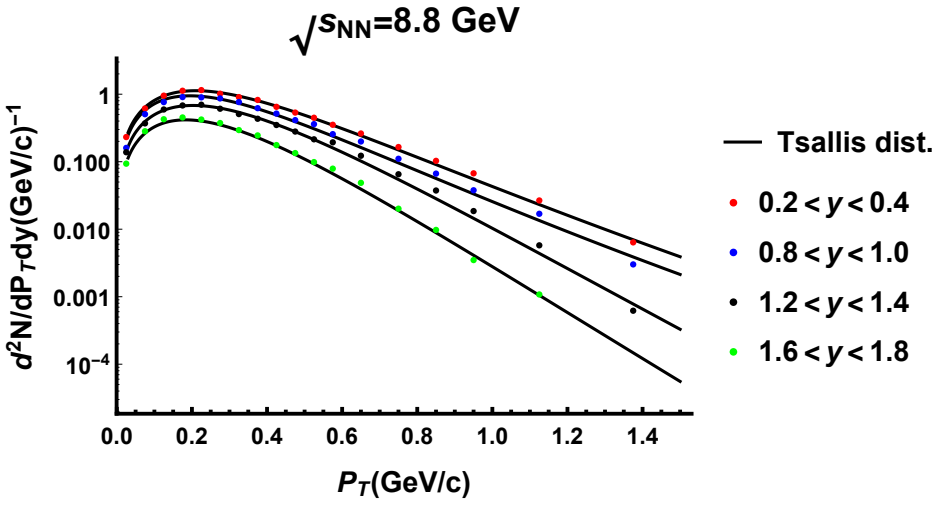
In[1344]:=
```
hd88 =
 ListLogPlot[{pt3y02, pt3y3, pt3y4, pt3y5}, PlotStyle → {Red, Blue, Black , Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}}, PlotStyle →
   {Red, Blue, Black , Gray, Green}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLegends → Placed[{"0.2 < y < 0.4",
     "0.8 < y < 1.0", "1.2 < y < 1.4", "1.6 < y < 1.8", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT(GeV/c)", "d²N/dPTdy(GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1344]=



In[1345]:=
```
Show[h3, hd88]
```

Out[1345]=



In[1346]:=
```
pt4 = {{0.05, 0.25043}, {0.1, 0.7206}, {0.15, 1.13881}, {0.2, 1.34107},
   {0.25, 1.31541}, {0.3, 1.25047}, {0.35, 1.09683}, {0.4, 0.91637},
   {0.45, 0.80248}, {0.5, 0.64927}, {0.55, 0.5111}, {0.6, 0.43881}, {0.7, 0.30744},
   {0.8, 0.20007}, {0.9, 0.12982}, {1.0, 0.0791}, {1.25, 0.03549}, {1.5, 0.00951}}
```

Out[1346]=
```
{{0.05, 0.25043}, {0.1, 0.7206}, {0.15, 1.13881}, {0.2, 1.34107}, {0.25, 1.31541},
 {0.3, 1.25047}, {0.35, 1.09683}, {0.4, 0.91637}, {0.45, 0.80248},
 {0.5, 0.64927}, {0.55, 0.5111}, {0.6, 0.43881}, {0.7, 0.30744},
 {0.8, 0.20007}, {0.9, 0.12982}, {1., 0.0791}, {1.25, 0.03549}, {1.5, 0.00951}}
```

In[1347]:=
```
pt4y02 = {{0.025`, 0.25443`}, {0.075`, 0.72497`}, {0.125`, 1.08132`},
   {0.175`, 1.26466`}, {0.225`, 1.31752`}, {0.275`, 1.22467`}, {0.325`, 1.08368`},
   {0.375`, 0.91722`}, {0.425`, 0.77282`}, {0.475`, 0.64658`},
   {0.525`, 0.51542`}, {0.575`, 0.40219`}, {0.65`, 0.30852`}, {0.75`, 0.19545`},
   {0.85`, 0.12383`}, {0.95`, 0.07763`}, {1.125`, 0.03362`}, {1.375`, 0.01097`}}
```

Out[1347]=
```
{{0.025, 0.25443}, {0.075, 0.72497}, {0.125, 1.08132},
 {0.175, 1.26466}, {0.225, 1.31752}, {0.275, 1.22467},
 {0.325, 1.08368}, {0.375, 0.91722}, {0.425, 0.77282}, {0.475, 0.64658},
 {0.525, 0.51542}, {0.575, 0.40219}, {0.65, 0.30852}, {0.75, 0.19545},
 {0.85, 0.12383}, {0.95, 0.07763}, {1.125, 0.03362}, {1.375, 0.01097}}
```

In[1348]:=
```
pt4y2 = {{0.025`, 0.24954`}, {0.075`, 0.70949`}, {0.125`, 1.09245`},
   {0.175`, 1.25717`}, {0.225`, 1.27103`}, {0.275`, 1.18366`}, {0.325`, 1.0425`},
   {0.375`, 0.89842`}, {0.425`, 0.76491`}, {0.475`, 0.61849`},
   {0.525`, 0.5197`}, {0.575`, 0.40861`}, {0.65`, 0.29397`}, {0.75`, 0.18366`},
   {0.85`, 0.10677`}, {0.95`, 0.07634`}, {1.125`, 0.03247`}, {1.375`, 0.00789`}}
```

Out[1348]=
```
{{0.025, 0.24954}, {0.075, 0.70949}, {0.125, 1.09245},
 {0.175, 1.25717}, {0.225, 1.27103}, {0.275, 1.18366},
 {0.325, 1.0425}, {0.375, 0.89842}, {0.425, 0.76491}, {0.475, 0.61849},
 {0.525, 0.5197}, {0.575, 0.40861}, {0.65, 0.29397}, {0.75, 0.18366},
 {0.85, 0.10677}, {0.95, 0.07634}, {1.125, 0.03247}, {1.375, 0.00789}}
```

In[1349]:=
```
pt4y3 = {{0.025`, 0.22515`}, {0.075`, 0.61753`}, {0.125`, 0.9293`},
   {0.175`, 1.12142`}, {0.225`, 1.12131`}, {0.275`, 1.03009`}, {0.325`, 0.95683`},
   {0.375`, 0.76791`}, {0.425`, 0.64617`}, {0.475`, 0.52325`},
   {0.525`, 0.40617`}, {0.575`, 0.33398`}, {0.65`, 0.24324`}, {0.75`, 0.1502`},
   {0.85`, 0.09528`}, {0.95`, 0.05134`}, {1.125`, 0.02113`}, {1.375`, 0.00457`}}
```

Out[1349]=
```
{{0.025, 0.22515}, {0.075, 0.61753}, {0.125, 0.9293},
 {0.175, 1.12142}, {0.225, 1.12131}, {0.275, 1.03009},
 {0.325, 0.95683}, {0.375, 0.76791}, {0.425, 0.64617}, {0.475, 0.52325},
 {0.525, 0.40617}, {0.575, 0.33398}, {0.65, 0.24324}, {0.75, 0.1502},
 {0.85, 0.09528}, {0.95, 0.05134}, {1.125, 0.02113}, {1.375, 0.00457}}
```

In[1350]:=
```
pt4y4 = {{0.025`, 0.1552`}, {0.075`, 0.49657`}, {0.125`, 0.75502`},
   {0.175`, 0.88033`}, {0.225`, 0.89538`}, {0.275`, 0.80766`}, {0.325`, 0.70419`},
   {0.375`, 0.58821`}, {0.425`, 0.48515`}, {0.475`, 0.39975`},
   {0.525`, 0.3071`}, {0.575`, 0.25502`}, {0.65`, 0.18362`}, {0.75`, 0.10843`},
   {0.85`, 0.05947`}, {0.95`, 0.03234`}, {1.125`, 0.01166`}, {1.375`, 0.00234`}}
```

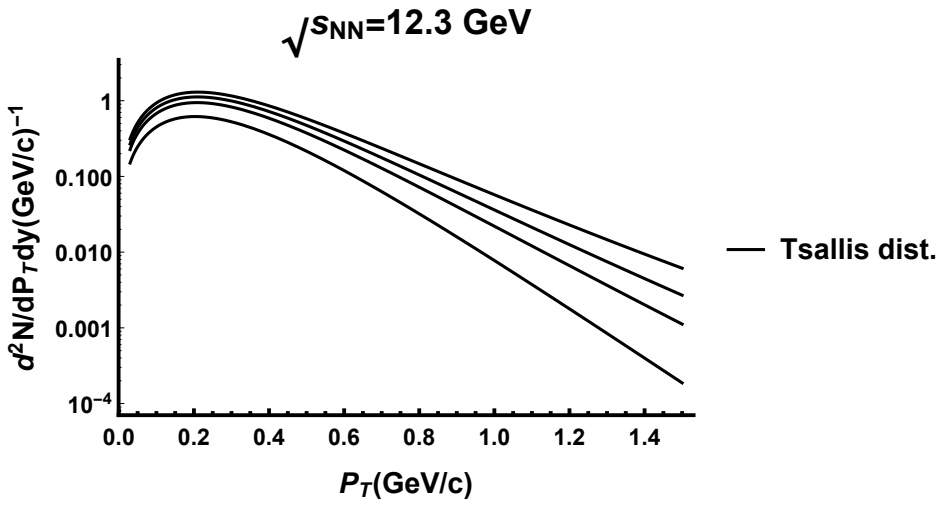
Out[1350]=
```
{{0.025, 0.1552}, {0.075, 0.49657}, {0.125, 0.75502},
 {0.175, 0.88033}, {0.225, 0.89538}, {0.275, 0.80766},
 {0.325, 0.70419}, {0.375, 0.58821}, {0.425, 0.48515}, {0.475, 0.39975},
 {0.525, 0.3071}, {0.575, 0.25502}, {0.65, 0.18362}, {0.75, 0.10843},
 {0.85, 0.05947}, {0.95, 0.03234}, {1.125, 0.01166}, {1.375, 0.00234}}
```

In[1351]:=
```
pt4y5 = {{0.025`, 0.13895`}, {0.075`, 0.37701`}, {0.125`, 0.57873`},
  {0.175`, 0.64688`}, {0.225`, 0.61722`}, {0.275`, 0.52268`},
  {0.325`, 0.4676`}, {0.375`, 0.3967`}, {0.425`, 0.32221`}, {0.475`, 0.25794`},
  {0.525`, 0.22366`}, {0.575`, 0.1702`}, {0.65`, 0.10622`}, {0.75`, 0.05671`},
  {0.85`, 0.03179`}, {0.95`, 0.01414`}, {1.125`, 0.00449`}, {1.375`, 0.00025`}}
```

Out[1351]=
```
{{0.025, 0.13895}, {0.075, 0.37701}, {0.125, 0.57873},
 {0.175, 0.64688}, {0.225, 0.61722}, {0.275, 0.52268},
 {0.325, 0.4676}, {0.375, 0.3967}, {0.425, 0.32221}, {0.475, 0.25794},
 {0.525, 0.22366}, {0.575, 0.1702}, {0.65, 0.10622}, {0.75, 0.05671},
 {0.85, 0.03179}, {0.95, 0.01414}, {1.125, 0.00449}, {1.375, 0.00025}}
```

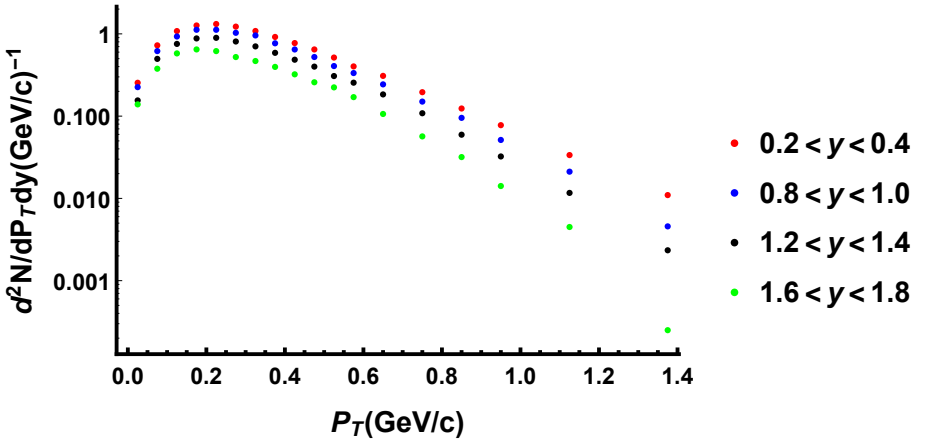
In[1352]:=
```
h4 = LogPlot[{f[c, pt, 1.06`, T, μ, 0.2`, 0.13957018`] /.
    {c → 0.292737564193425`, T → 0.13753912475456864`, μ → 0.7899001802008292`},
   f[c, pt, 1.043`, T, μ, 0.8`, 0.13957018`] /.
    {c → 0.554287379588119`, T → 0.15931606165851903`, μ → 0.8346421745606192`},
   , f[c, pt, 1.029, T, μ, 1.2`, 0.13957018`] /. {c → 1.13304, T → 0.19724,
     μ → 0.86982}, , f[c, pt, 1.01, T, μ, 1.6`, 0.13957018`] /.
    {c → 1.216309, T → 0.2603359777038854`, μ → 0.989462},},
  {pt, 0.03, 1.5}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dy (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "√s_NN=12.3 GeV",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1352]=



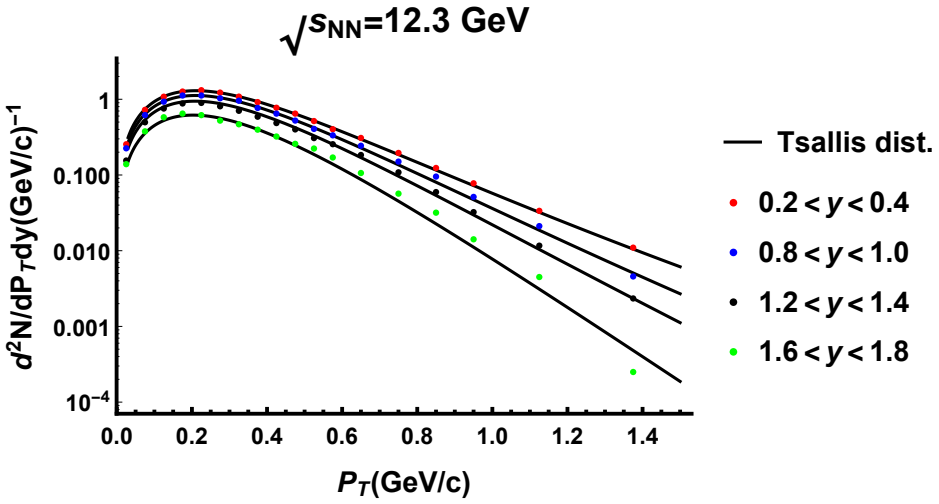
In[1353]:=
```
hd88 =
 ListLogPlot[{pt4y02, pt4y3, pt4y4, pt4y5}, PlotStyle → {Red, Blue, Black , Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}}, PlotStyle →
   {Red, Blue, Black , Gray, Green}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLegends → Placed[{"0.2 < y < 0.4",
     "0.8 < y < 1.0", "1.2 < y < 1.4", "1.6 < y < 1.8", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT(GeV/c)", "d²N/dPTdy(GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1353]=



In[1354]:=
```
Show[h4, hd88]
```

Out[1354]=



In[1355]:=
```
pt5 = {{0.05, 0.29647}, {0.1, 0.81834}, {0.15, 1.25625}, {0.2, 1.49673},
   {0.25, 1.47687}, {0.3, 1.35908}, {0.35, 1.24198}, {0.4, 1.06668},
   {0.45, 0.86586}, {0.5, 0.72441}, {0.55, 0.60363}, {0.6, 0.4646}, {0.7, 0.36041},
   {0.8, 0.21478}, {0.9, 0.1385}, {1.0, 0.08551}, {1.25, 0.04121}, {1.5, 0.01302}}
```

Out[1355]=
```
{{0.05, 0.29647}, {0.1, 0.81834}, {0.15, 1.25625}, {0.2, 1.49673},
 {0.25, 1.47687}, {0.3, 1.35908}, {0.35, 1.24198}, {0.4, 1.06668},
 {0.45, 0.86586}, {0.5, 0.72441}, {0.55, 0.60363}, {0.6, 0.4646}, {0.7, 0.36041},
 {0.8, 0.21478}, {0.9, 0.1385}, {1., 0.08551}, {1.25, 0.04121}, {1.5, 0.01302}}
```

In[1356]:=
```
pt5y02 = {{0.025`, 0.28049`}, {0.075`, 0.80994`}, {0.125`, 1.22955`},
  {0.175`, 1.47109`}, {0.225`, 1.48026`}, {0.275`, 1.37902`}, {0.325`, 1.21157`},
  {0.375`, 1.05358`}, {0.425`, 0.87007`}, {0.475`, 0.70964`},
  {0.525`, 0.56562`}, {0.575`, 0.48216`}, {0.65`, 0.35201`}, {0.75`, 0.21642`},
  {0.85`, 0.14397`}, {0.95`, 0.09929`}, {1.125`, 0.04162`}, {1.375`, 0.01348`}}
```

Out[1356]=
```
{{0.025, 0.28049}, {0.075, 0.80994}, {0.125, 1.22955},
 {0.175, 1.47109}, {0.225, 1.48026}, {0.275, 1.37902},
 {0.325, 1.21157}, {0.375, 1.05358}, {0.425, 0.87007}, {0.475, 0.70964},
 {0.525, 0.56562}, {0.575, 0.48216}, {0.65, 0.35201}, {0.75, 0.21642},
 {0.85, 0.14397}, {0.95, 0.09929}, {1.125, 0.04162}, {1.375, 0.01348}}
```

In[1357]:=
```
pt5y2 = {{0.025`, 0.27501`}, {0.075`, 0.79812`}, {0.125`, 1.19758`},
  {0.175`, 1.40212`}, {0.225`, 1.403`}, {0.275`, 1.31802`}, {0.325`, 1.163`},
  {0.375`, 1.02528`}, {0.425`, 0.83662`}, {0.475`, 0.71145`},
  {0.525`, 0.57688`}, {0.575`, 0.46755`}, {0.65`, 0.33012`}, {0.75`, 0.19869`},
  {0.85`, 0.13683`}, {0.95`, 0.07824`}, {1.125`, 0.03864`}, {1.375`, 0.01414`}}
```

Out[1357]=
```
{{0.025, 0.27501}, {0.075, 0.79812}, {0.125, 1.19758},
 {0.175, 1.40212}, {0.225, 1.403}, {0.275, 1.31802}, {0.325, 1.163},
 {0.375, 1.02528}, {0.425, 0.83662}, {0.475, 0.71145},
 {0.525, 0.57688}, {0.575, 0.46755}, {0.65, 0.33012}, {0.75, 0.19869},
 {0.85, 0.13683}, {0.95, 0.07824}, {1.125, 0.03864}, {1.375, 0.01414}}
```

In[1358]:=
```
pt5y06 = {{0.025`, 0.26613`}, {0.075`, 0.7807`}, {0.125`, 1.14393`},
  {0.175`, 1.28705`}, {0.225`, 1.31522`}, {0.275`, 1.27728`}, {0.325`, 1.12197`},
  {0.375`, 0.97837`}, {0.425`, 0.79586`}, {0.475`, 0.67441`},
  {0.525`, 0.51589`}, {0.575`, 0.43236`}, {0.65`, 0.31631`}, {0.75`, 0.19502`},
  {0.85`, 0.12021`}, {0.95`, 0.07913`}, {1.125`, 0.03542`}, {1.375`, 0.01201`}}
```

Out[1358]=
```
{{0.025, 0.26613}, {0.075, 0.7807}, {0.125, 1.14393},
 {0.175, 1.28705}, {0.225, 1.31522}, {0.275, 1.27728},
 {0.325, 1.12197}, {0.375, 0.97837}, {0.425, 0.79586}, {0.475, 0.67441},
 {0.525, 0.51589}, {0.575, 0.43236}, {0.65, 0.31631}, {0.75, 0.19502},
 {0.85, 0.12021}, {0.95, 0.07913}, {1.125, 0.03542}, {1.375, 0.01201}}
```

In[1359]:=
```
pt5y3 = {{0.025`, 0.24096`}, {0.075`, 0.71067`}, {0.125`, 1.10072`},
  {0.175`, 1.27359`}, {0.225`, 1.26932`}, {0.275`, 1.20996`}, {0.325`, 1.08797`},
  {0.375`, 0.89056`}, {0.425`, 0.75969`}, {0.475`, 0.61385`},
  {0.525`, 0.49795`}, {0.575`, 0.41079`}, {0.65`, 0.28331`}, {0.75`, 0.17713`},
  {0.85`, 0.11068`}, {0.95`, 0.07023`}, {1.125`, 0.03215`}, {1.375`, 0.01017`}}
```

Out[1359]=
```
{{0.025, 0.24096}, {0.075, 0.71067}, {0.125, 1.10072},
 {0.175, 1.27359}, {0.225, 1.26932}, {0.275, 1.20996},
 {0.325, 1.08797}, {0.375, 0.89056}, {0.425, 0.75969}, {0.475, 0.61385},
 {0.525, 0.49795}, {0.575, 0.41079}, {0.65, 0.28331}, {0.75, 0.17713},
 {0.85, 0.11068}, {0.95, 0.07023}, {1.125, 0.03215}, {1.375, 0.01017}}
```

In[1360]:=
```
pt5y10 = {{0.025`, 0.25489`}, {0.075`, 0.66412`}, {0.125`, 1.00538`},
   {0.175`, 1.17433`}, {0.225`, 1.18673`}, {0.275`, 1.09507`}, {0.325`, 0.9782`},
   {0.375`, 0.85605`}, {0.425`, 0.68944`}, {0.475`, 0.54424`},
   {0.525`, 0.4661`}, {0.575`, 0.37051`}, {0.65`, 0.26615`}, {0.75`, 0.16615`},
   {0.85`, 0.09954`}, {0.95`, 0.05927`}, {1.125`, 0.02713`}, {1.375`, 0.00711`}}
```

Out[1360]=
```
{{0.025, 0.25489}, {0.075, 0.66412}, {0.125, 1.00538},
 {0.175, 1.17433}, {0.225, 1.18673}, {0.275, 1.09507},
 {0.325, 0.9782}, {0.375, 0.85605}, {0.425, 0.68944}, {0.475, 0.54424},
 {0.525, 0.4661}, {0.575, 0.37051}, {0.65, 0.26615}, {0.75, 0.16615},
 {0.85, 0.09954}, {0.95, 0.05927}, {1.125, 0.02713}, {1.375, 0.00711}}
```

In[1361]:=
```
pt5y4 = {{0.025`, 0.21268`}, {0.075`, 0.61213`}, {0.125`, 0.93388`},
   {0.175`, 1.08128`}, {0.225`, 1.09507`}, {0.275`, 1.01318`},
   {0.325`, 0.90528`}, {0.375`, 0.76518`}, {0.425`, 0.6159`}, {0.475`, 0.52533`},
   {0.525`, 0.43032`}, {0.575`, 0.33848`}, {0.65`, 0.23227`}, {0.75`, 0.15278`},
   {0.85`, 0.08791`}, {0.95`, 0.05123`}, {1.125`, 0.0205`}, {1.375`, 0.00467`}}
```

Out[1361]=
```
{{0.025, 0.21268}, {0.075, 0.61213}, {0.125, 0.93388},
 {0.175, 1.08128}, {0.225, 1.09507}, {0.275, 1.01318},
 {0.325, 0.90528}, {0.375, 0.76518}, {0.425, 0.6159}, {0.475, 0.52533},
 {0.525, 0.43032}, {0.575, 0.33848}, {0.65, 0.23227}, {0.75, 0.15278},
 {0.85, 0.08791}, {0.95, 0.05123}, {1.125, 0.0205}, {1.375, 0.00467}}
```

In[1362]:=
```
pt5y14 = {{0.025`, 0.1906`}, {0.075`, 0.54962`}, {0.125`, 0.85343`},
   {0.175`, 0.96349`}, {0.225`, 0.96635`}, {0.275`, 0.91722`}, {0.325`, 0.78844`},
   {0.375`, 0.68052`}, {0.425`, 0.56152`}, {0.475`, 0.45957`},
   {0.525`, 0.3655`}, {0.575`, 0.296`}, {0.65`, 0.20597`}, {0.75`, 0.13136`},
   {0.85`, 0.07454`}, {0.95`, 0.04783`}, {1.125`, 0.01355`}, {1.375`, 0.00319`}}
```

Out[1362]=
```
{{0.025, 0.1906}, {0.075, 0.54962}, {0.125, 0.85343},
 {0.175, 0.96349}, {0.225, 0.96635}, {0.275, 0.91722},
 {0.325, 0.78844}, {0.375, 0.68052}, {0.425, 0.56152}, {0.475, 0.45957},
 {0.525, 0.3655}, {0.575, 0.296}, {0.65, 0.20597}, {0.75, 0.13136},
 {0.85, 0.07454}, {0.95, 0.04783}, {1.125, 0.01355}, {1.375, 0.00319}}
```

In[1363]:=
```
pt5y5 = {{0.025`, 0.17879`}, {0.075`, 0.49585`}, {0.125`, 0.73838`},
   {0.175`, 0.84656`}, {0.225`, 0.85492`}, {0.275`, 0.77632`}, {0.325`, 0.6551`},
   {0.375`, 0.58878`}, {0.425`, 0.48615`}, {0.475`, 0.38249`},
   {0.525`, 0.30176`}, {0.575`, 0.26667`}, {0.65`, 0.17952`}, {0.75`, 0.1012`},
   {0.85`, 0.06469`}, {0.95`, 0.02914`}, {1.125`, 0.0094`}, {1.375`, 0.00192`}}
```

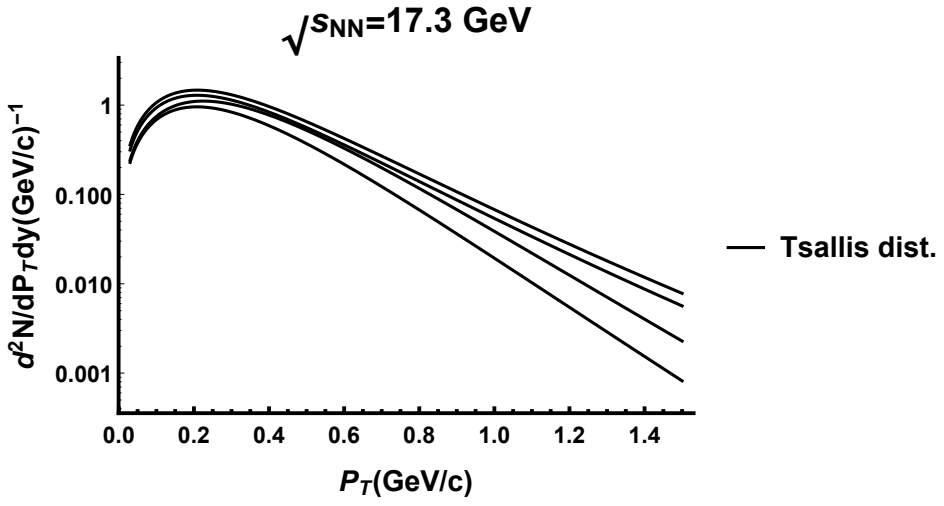
Out[1363]=
```
{{0.025, 0.17879}, {0.075, 0.49585}, {0.125, 0.73838},
 {0.175, 0.84656}, {0.225, 0.85492}, {0.275, 0.77632},
 {0.325, 0.6551}, {0.375, 0.58878}, {0.425, 0.48615}, {0.475, 0.38249},
 {0.525, 0.30176}, {0.575, 0.26667}, {0.65, 0.17952}, {0.75, 0.1012},
 {0.85, 0.06469}, {0.95, 0.02914}, {1.125, 0.0094}, {1.375, 0.00192}}
```

In[1364]:=
```
pt5y18 = {{0.025`, 0.15517`}, {0.075`, 0.4082`}, {0.125`, 0.6199`},
  {0.175`, 0.73649`}, {0.225`, 0.708`}, {0.275`, 0.64978`}, {0.325`, 0.54047`},
  {0.375`, 0.46982`}, {0.425`, 0.37453`}, {0.475`, 0.30682`},
  {0.525`, 0.24719`}, {0.575`, 0.19604`}, {0.65`, 0.13509`}, {0.75`, 0.07696`},
  {0.85`, 0.03871`}, {0.95`, 0.0202`}, {1.125`, 0.00674`}, {1.375`, 0.00141`}}
```

Out[1364]=
```
{{0.025, 0.15517}, {0.075, 0.4082}, {0.125, 0.6199},
 {0.175, 0.73649}, {0.225, 0.708}, {0.275, 0.64978}, {0.325, 0.54047},
 {0.375, 0.46982}, {0.425, 0.37453}, {0.475, 0.30682},
 {0.525, 0.24719}, {0.575, 0.19604}, {0.65, 0.13509}, {0.75, 0.07696},
 {0.85, 0.03871}, {0.95, 0.0202}, {1.125, 0.00674}, {1.375, 0.00141}}
```

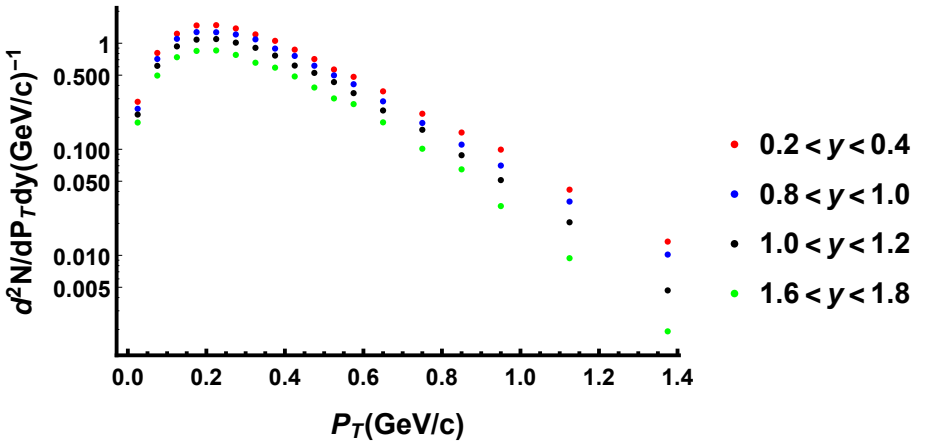
In[1365]:=
```
h5 = LogPlot[{f[c, pt, 1.065`, T, μ, 0.2`, 0.13957018`] /.
    {c → 0.3112805677043473`, T → 0.1400893477613218`, μ → 0.8007694778706854`},
   f[c, pt, 1.06`, T, μ, 0.8`, 0.13957018`] /. {c → 0.4391198601868636`,
    T → 0.17127531928678932`, μ → 0.9087341914363287`},
   f[c, pt, 1.026, T, μ, 1.2, 0.13957018`] /. {c → 1.162307, T → 0.212683,
    μ → 0.9300764}, f[c, pt, 1.023, T, μ, 1.6`, 0.13957018`] /.
   {c → 1.00028, T → 0.2753288, μ → 1.17388}},
  {pt, 0.03, 1.5}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dy (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "√s_NN=17.3 GeV",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1365]=



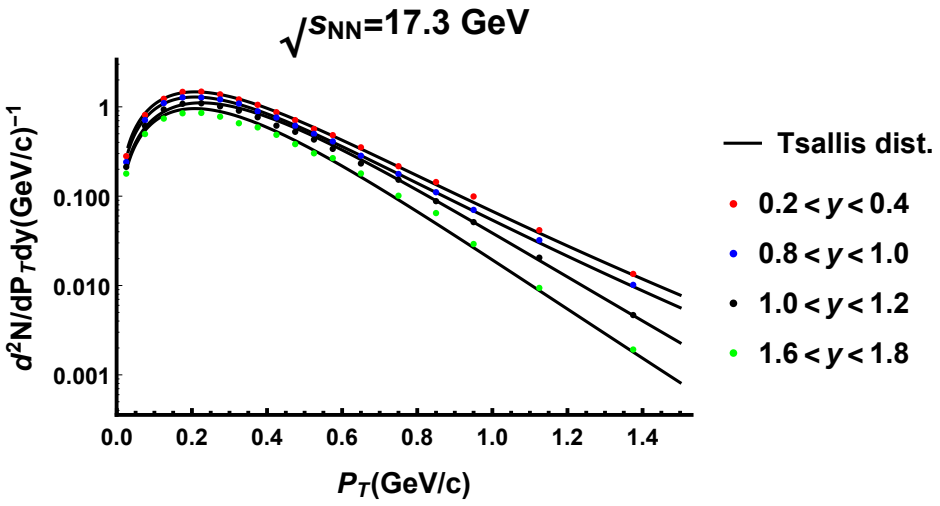
In[1366]:=
```
hd17 =
 ListLogPlot[{pt5y02, pt5y3, pt5y4, pt5y5}, PlotStyle → {Red, Blue, Black , Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}}, PlotStyle →
   {Red, Blue, Black , Gray, Green}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLegends →
   Placed[{"0.2 < y < 0.4", "0.8 < y < 1.0", "1.0 < y < 1.2", "1.6 < y < 1.8"}, Right],
  FrameLabel → {"PT (GeV/c)", "d2N/dPTdy (GeV/c)-1"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1366]=



In[1367]:=
```
Show[h5, hd17]
```

Out[1367]=



In[1368]:=
```
pt6 = {{0.15`, 5.51`}, {0.25`, 6.25`}, {0.35`, 5.15`}, {0.45`, 3.89`},
  {0.55`, 2.91`}, {0.65`, 2.25`}, {0.75`, 1.65`}, {0.85`, 1.23`}, {0.95`, 0.95`},
  {1.1`, 0.64`}, {1.3`, 0.37`}, {1.5`, 0.22`}, {1.7`, 0.13`}, {1.9`, 0.09`}}
```

Out[1368]=
```
{{0.15, 5.51}, {0.25, 6.25}, {0.35, 5.15}, {0.45, 3.89},
 {0.55, 2.91}, {0.65, 2.25}, {0.75, 1.65}, {0.85, 1.23}, {0.95, 0.95},
 {1.1, 0.64}, {1.3, 0.37}, {1.5, 0.22}, {1.7, 0.13}, {1.9, 0.09}}
```

In[1369]:=
```
pt6y2 = {{0.15`, 5.58`}, {0.25`, 6.28`}, {0.35`, 5.42`}, {0.45`, 4.06`},
  {0.55`, 3.13`}, {0.65`, 2.15`}, {0.75`, 1.68`}, {0.85`, 1.21`}, {0.95`, 0.91`},
  {1.1`, 0.62`}, {1.3`, 0.38`}, {1.5`, 0.22`}, {1.7`, 0.15`}, {1.9`, 0.09`}}
```

Out[1369]=
```
{{0.15, 5.58}, {0.25, 6.28}, {0.35, 5.42}, {0.45, 4.06},
 {0.55, 3.13}, {0.65, 2.15}, {0.75, 1.68}, {0.85, 1.21}, {0.95, 0.91},
 {1.1, 0.62}, {1.3, 0.38}, {1.5, 0.22}, {1.7, 0.15}, {1.9, 0.09}}
```

In[1370]:=
```
pt6y3 = {{0.15`, 5.89`}, {0.25`, 6.48`}, {0.35`, 5.36`}, {0.45`, 4.1`},
  {0.55`, 3.03`}, {0.65`, 2.2`}, {0.75`, 1.68`}, {0.85`, 1.21`}, {0.95`, 0.92`},
  {1.1`, 0.61`}, {1.3`, 0.38`}, {1.5`, 0.22`}, {1.7`, 0.13`}, {1.9`, 0.09`}}
```

Out[1370]=
```
{{0.15, 5.89}, {0.25, 6.48}, {0.35, 5.36}, {0.45, 4.1},
 {0.55, 3.03}, {0.65, 2.2}, {0.75, 1.68}, {0.85, 1.21}, {0.95, 0.92},
 {1.1, 0.61}, {1.3, 0.38}, {1.5, 0.22}, {1.7, 0.13}, {1.9, 0.09}}
```

In[1371]:=
```
pt6y4 = {{0.15`, 6.25`}, {0.25`, 6.78`}, {0.35`, 5.43`}, {0.45`, 4.12`},
  {0.55`, 2.97`}, {0.65`, 2.22`}, {0.75`, 1.65`}, {0.85`, 1.19`}, {0.95`, 0.92`},
  {1.1`, 0.59`}, {1.3`, 0.35`}, {1.5`, 0.21`}, {1.7`, 0.12`}, {1.9`, 0.08`}}
```

Out[1371]=
```
{{0.15, 6.25}, {0.25, 6.78}, {0.35, 5.43}, {0.45, 4.12},
 {0.55, 2.97}, {0.65, 2.22}, {0.75, 1.65}, {0.85, 1.19}, {0.95, 0.92},
 {1.1, 0.59}, {1.3, 0.35}, {1.5, 0.21}, {1.7, 0.12}, {1.9, 0.08}}
```

In[1372]:=
```
pt6y5 = {{0.15`, 6.8`}, {0.25`, 6.88`}, {0.35`, 5.2`}, {0.45`, 3.96`},
  {0.55`, 3.05`}, {0.65`, 2.12`}, {0.75`, 1.63`}, {0.85`, 1.21`}, {0.95`, 0.91`},
  {1.1`, 0.57`}, {1.3`, 0.35`}, {1.5`, 0.19`}, {1.7`, 0.12`}, {1.9`, 0.08`}}
```

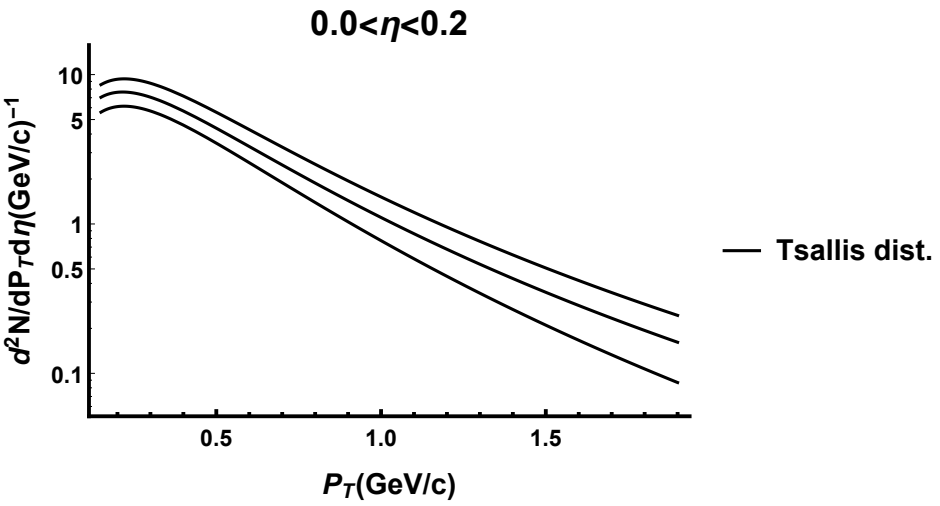
Out[1372]=
```
{{0.15, 6.8}, {0.25, 6.88}, {0.35, 5.2}, {0.45, 3.96},
 {0.55, 3.05}, {0.65, 2.12}, {0.75, 1.63}, {0.85, 1.21}, {0.95, 0.91},
 {1.1, 0.57}, {1.3, 0.35}, {1.5, 0.19}, {1.7, 0.12}, {1.9, 0.08}}
```

In[1373]:=
```
pt6y6 = {{0.15`, 6.76`}, {0.25`, 6.9`}, {0.35`, 5.02`}, {0.45`, 4.33`},
  {0.55`, 3.02`}, {0.65`, 2.17`}, {0.75`, 1.6`}, {0.85`, 1.18`}, {0.95`, 0.86`},
  {1.1`, 0.57`}, {1.3`, 0.34`}, {1.5`, 0.19`}, {1.7`, 0.11`}, {1.9`, 0.07`}}
```

Out[1373]=
```
{{0.15, 6.76}, {0.25, 6.9}, {0.35, 5.02}, {0.45, 4.33},
 {0.55, 3.02}, {0.65, 2.17}, {0.75, 1.6}, {0.85, 1.18}, {0.95, 0.86},
 {1.1, 0.57}, {1.3, 0.34}, {1.5, 0.19}, {1.7, 0.11}, {1.9, 0.07}}
```

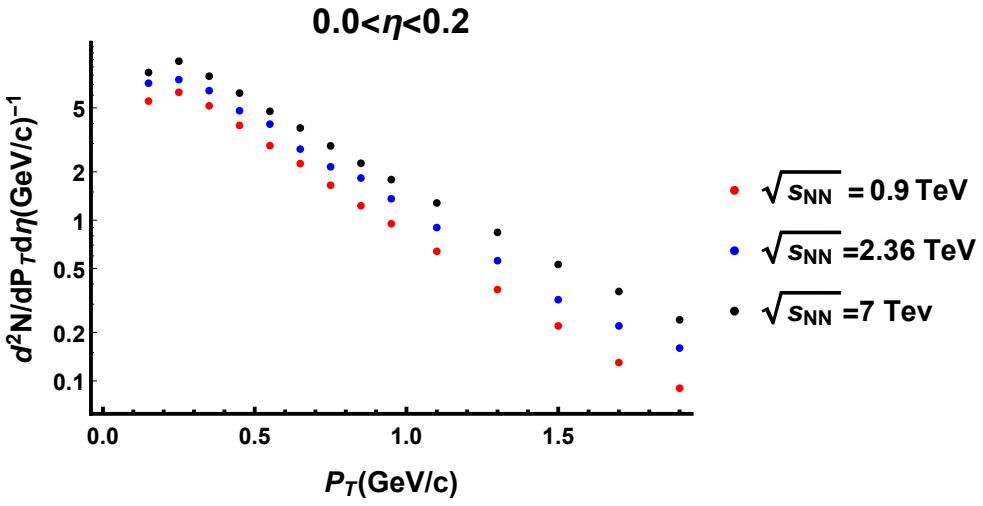
In[1374]:=
```
h6 = LogPlot[{f[c, pt, 1.129`, T, μ, 0.`, 0.13957018`] /.
    {c → 0.7988163074104511`, T → 0.20392623729607776`, μ → 1.001075165137411`},
   f[c, pt, 1.149`, T, μ, 0, 0.13957018`] /.
    {c → 0.5644484580017055`, T → 0.2410489420102862`, μ → 1.1616381692547946`},
   f[c, pt, 1.155`, T, μ, 0, 0.13957018`] /.
    {c → 1.0153627769709546`, T → 0.23884928117234341`, μ → 1.1004047273716833`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.0<η<0.2",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1374]=



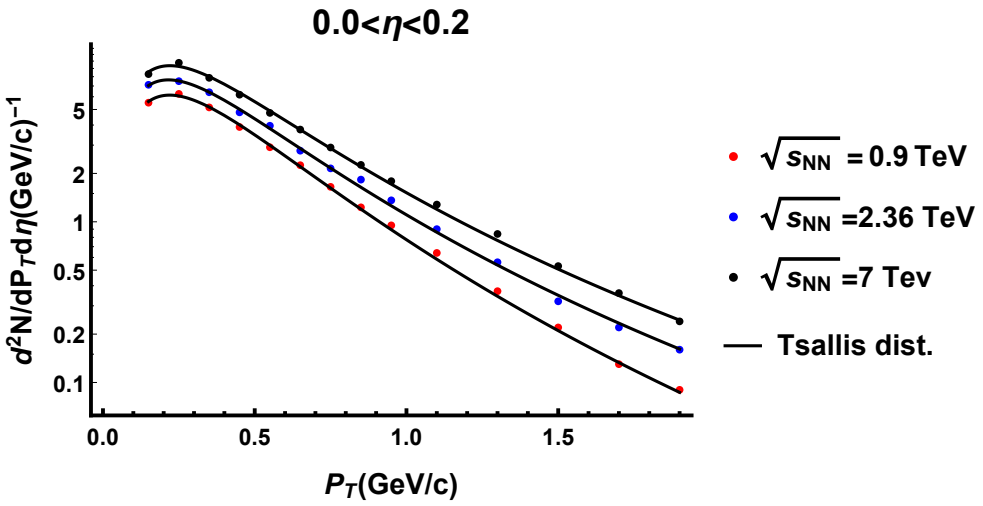
In[1375]:=
```
hd00y = ListLogPlot[{pt6, pt7, pt8}, PlotStyle → {Red, Blue, Black },
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.0<η<0.2", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1375]=



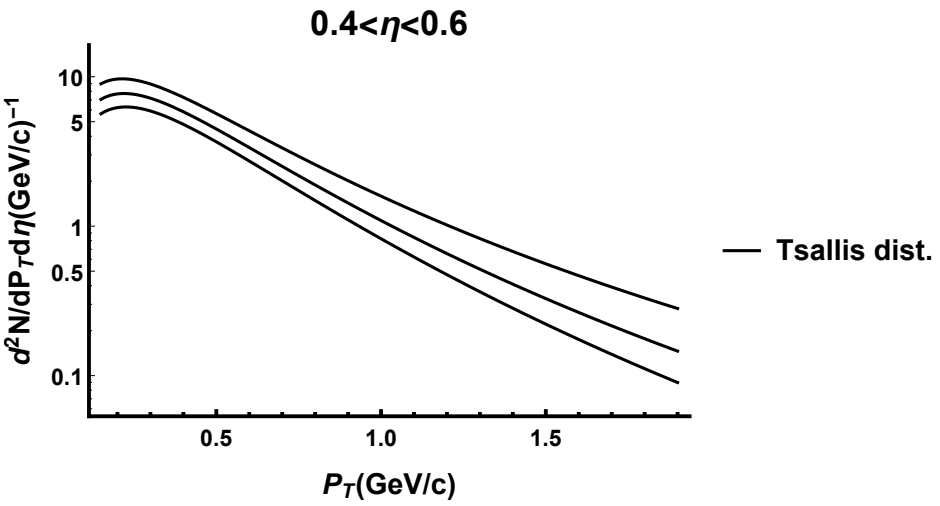
In[1376]:=
```
Show[hd00y, h6]
```

Out[1376]=



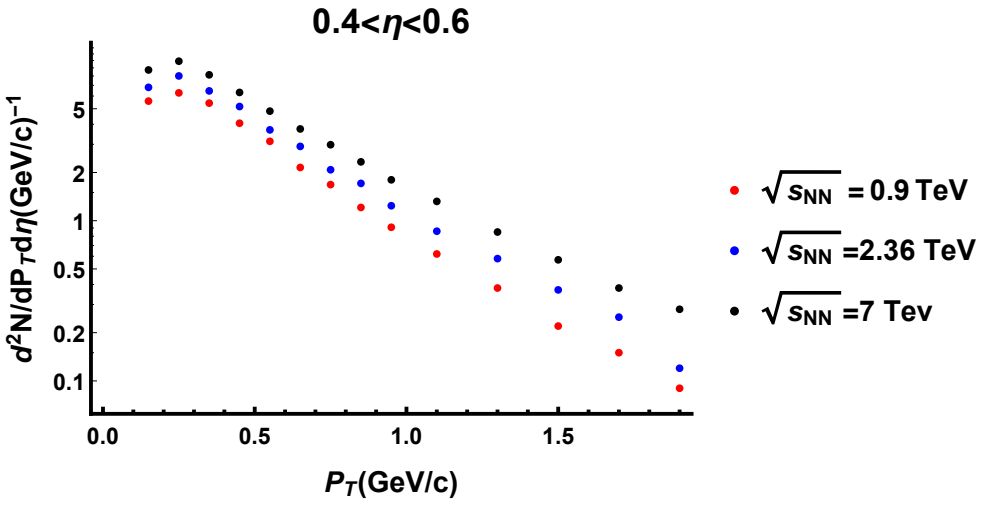
In[1377]:=
```
hy2 = LogPlot[{f[c, pt, 1.125, T, μ, 0.4`, 0.13957018`] /.
    {c → 0.7947404167120654`, T → 0.2196641, μ → 1.08022},
   f[c, pt, 1.141`, T, μ, 0.4`, 0.13957018`] /.
    {c → 1.0664738640180607`, T → 0.22923395010851214`, μ → 1.0765545127836738`},
   f[c, pt, 1.165`, T, μ, 0.4`, 0.13957018`] /.
    {c → 0.7430701119478144`, T → 0.27766727719634504`, μ → 1.2681457112214836`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.4<η<0.6",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1377]=



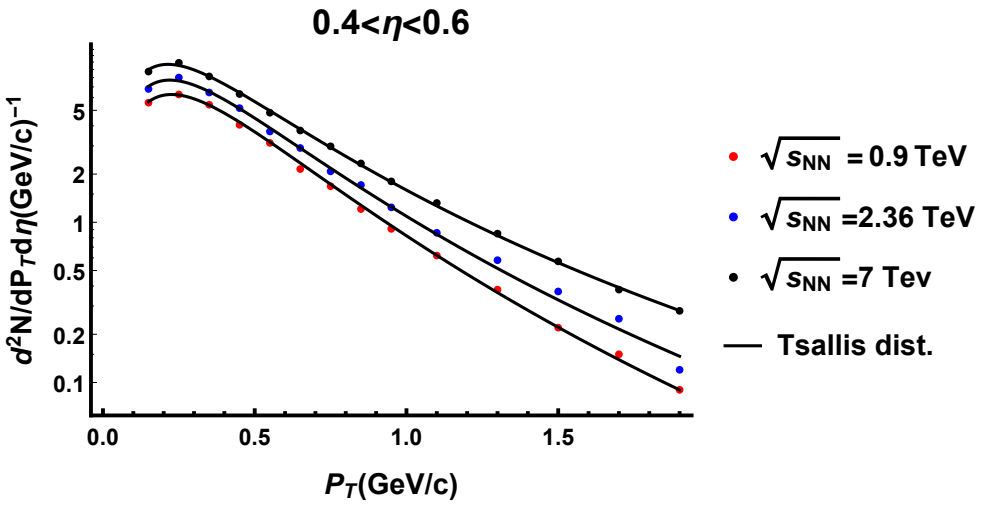
In[1378]:=
```
hd04y = ListLogPlot[{pt6y2, pt7y2, pt8y2},
  PlotStyle → {Red, Blue, Black }, FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.4<η<0.6", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1378]=



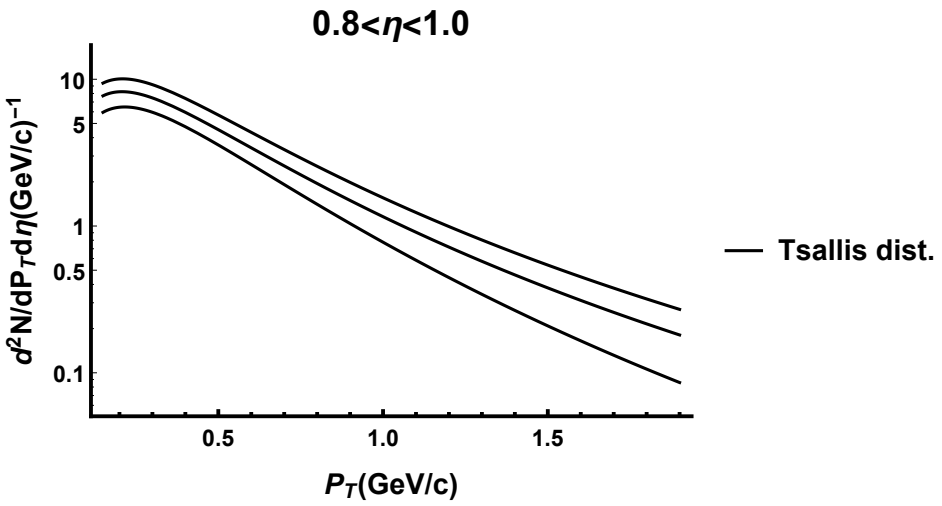
In[1379]:=
```
Show[hd04y, hy2]
```

Out[1379]=



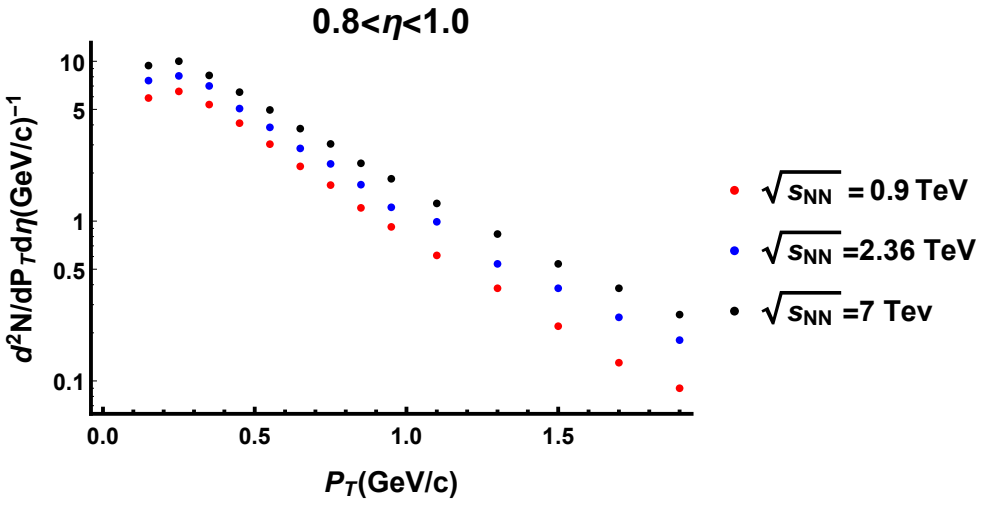
In[1380]:=
```
hy3 = LogPlot[{f[c, pt, 1.1295`, T, μ, 0.8`, 0.13957018`] /.
    {c → 0.7431904198123725`, T → 0.2636417344153028`, μ → 1.2813067920398113`},
   f[c, pt, 1.157`, T, μ, 0.8`, 0.13957018`] /.
    {c → 0.9237795971819656`, T → 0.292570847689644`, μ → 1.3283425683942385`},
   f[c, pt, 1.165`, T, μ, 0.8`, 0.13957018`] /.
    {c → 1.1963714994157066`, T → 0.3031350097013551`, μ → 1.3391871933438497`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.8<η<1.0",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1380]=



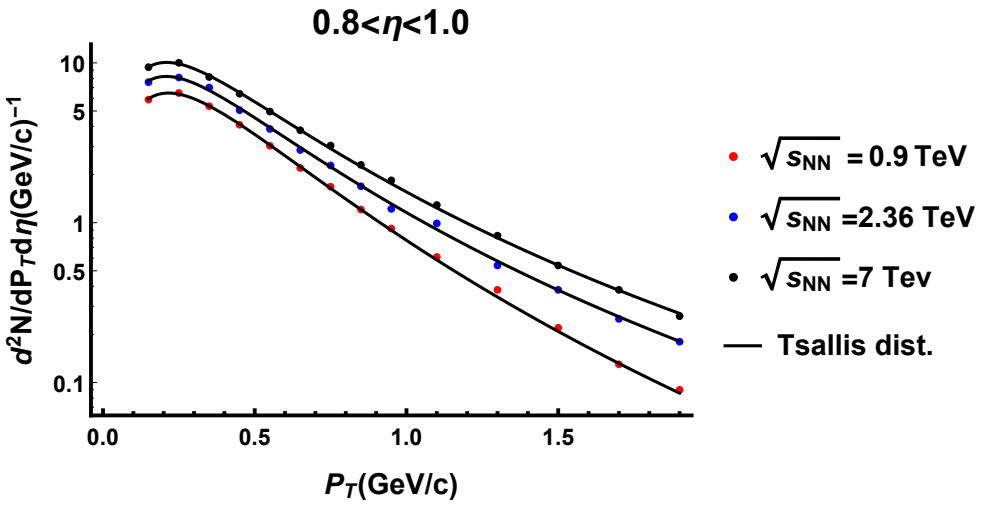
In[1381]:=
```
hd08y = ListLogPlot[{pt6y3, pt7y3, pt8y3},
  PlotStyle → {Red, Blue, Black }, FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "0.8<η<1.0", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1381]=



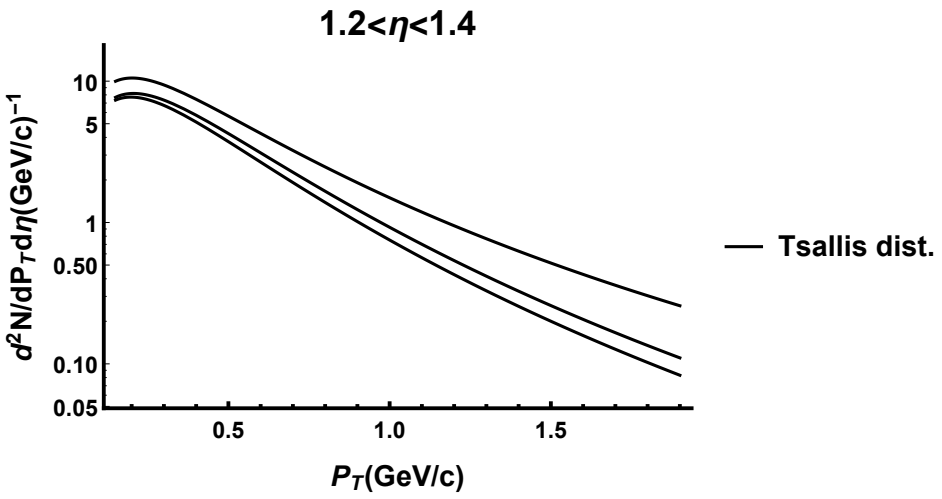
In[1382]:=
```
Show[hd08y, hy3]
```

Out[1382]=



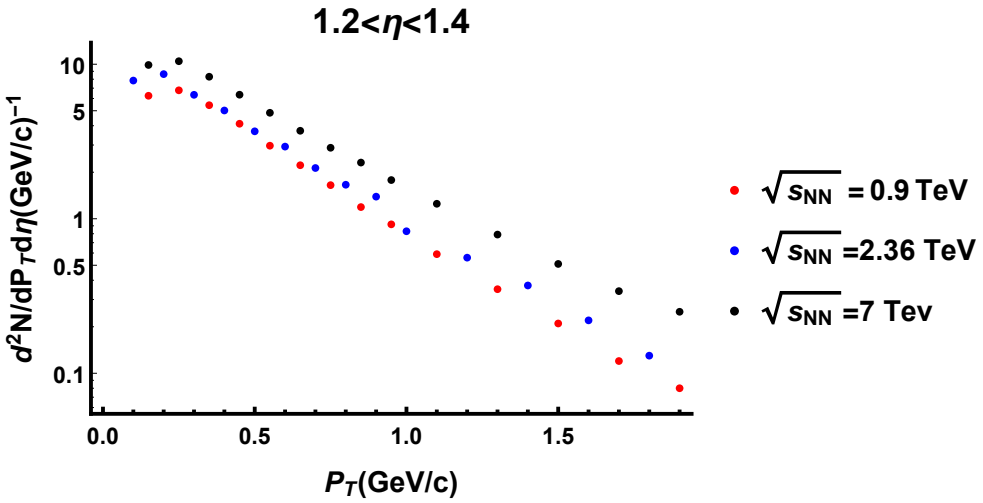
In[1383]:=
```
hy4 = LogPlot[{f[c, pt, 1.136, T, μ, 1.2`, 0.13957018`] /.
    {c → 0.7610177170938652`, T → 0.3351314, μ → 1.61291},
   f[c, pt, 1.138, T, μ, 1.2, 0.13957018`] /. {c → 0.6, T → 0.3645013, μ → 1.7653},
   f[c, pt, 1.167`, T, μ, 1.35`, 0.13957018`] /.
    {c → 1.283170426467882`, T → 0.423270363604441`, μ → 1.8215793837436531`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "1.2<η<1.4",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1383]=



In[1384]:=
```
hd04y = ListLogPlot[{pt6y4, pt7y4, pt8y4},
  PlotStyle → {Red, Blue, Black }, FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "1.2<η<1.4", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

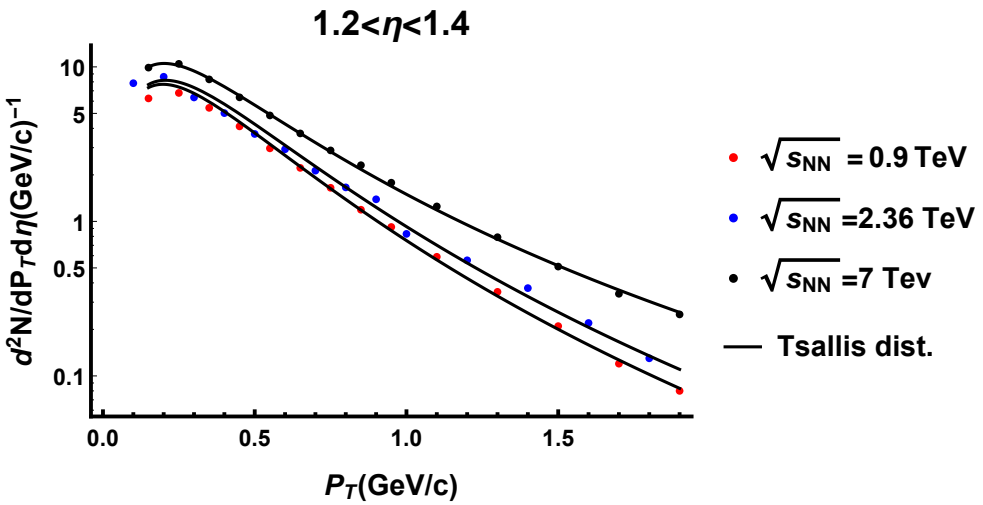
Out[1384]=



In[1385]:=
```
.
```

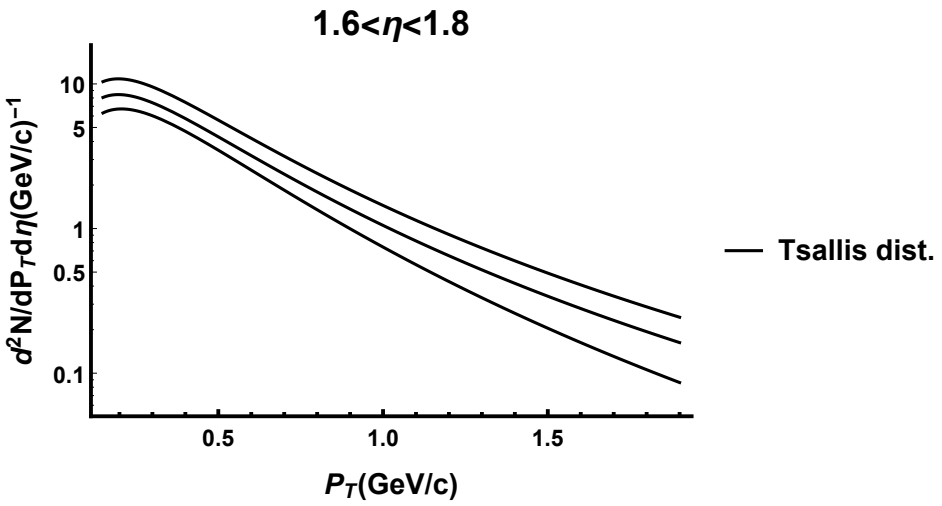
In[1385]:=
```
Show[hd04y, hy4]
```

Out[1385]=



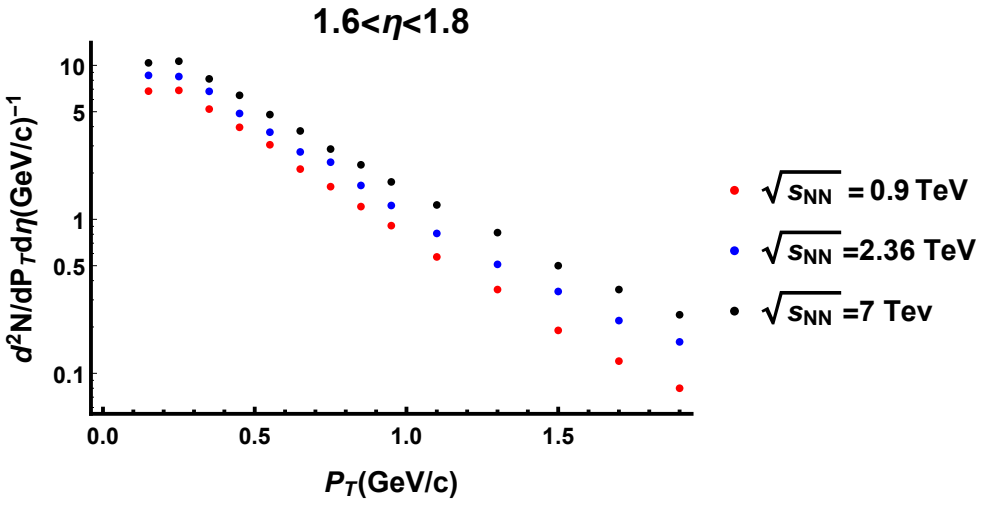
In[1386]:=
```
hy5 = LogPlot[{f[c, pt, 1.136, T, μ, 1.6`, 0.13957018`] /.
    {c → 1.402156352357172`, T → 0.424951, μ → 1.8485},
   f[c, pt, 1.16, T, μ, 1.6`, 0.13957018`] /.
    {c → 1.4361579887466114`, T → 0.46145, μ → 1.953514340721846`},
   f[c, pt, 1.167`, T, μ, 1.6`, 0.13957018`] /.
    {c → 1.427448677928626`, T → 0.49437656373543926`, μ → 2.09647588483147`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "1.6<η<1.8",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1386]=



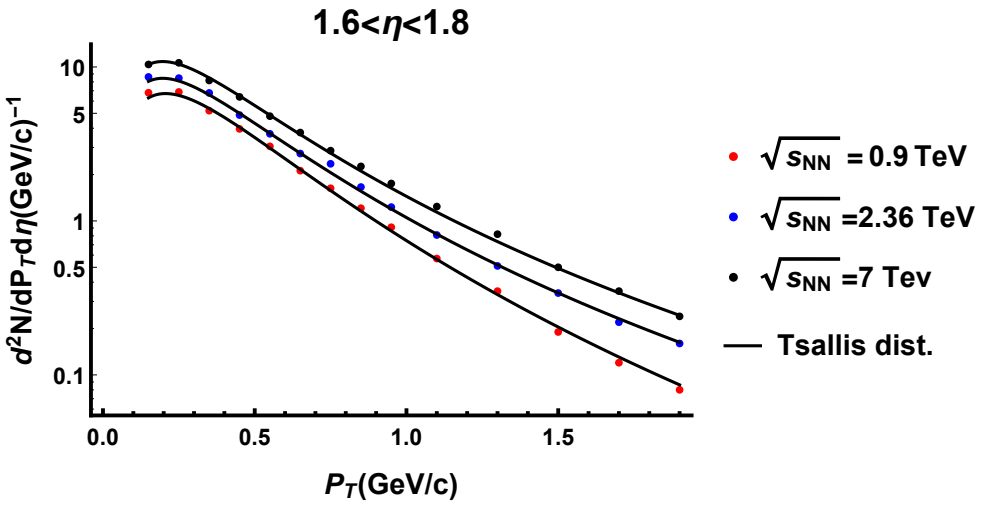
In[1387]:=
```
hd16y = ListLogPlot[{pt6y5, pt7y5, pt8y5},
  PlotStyle → {Red, Blue, Black }, FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "1.6<η<1.8", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1387]=



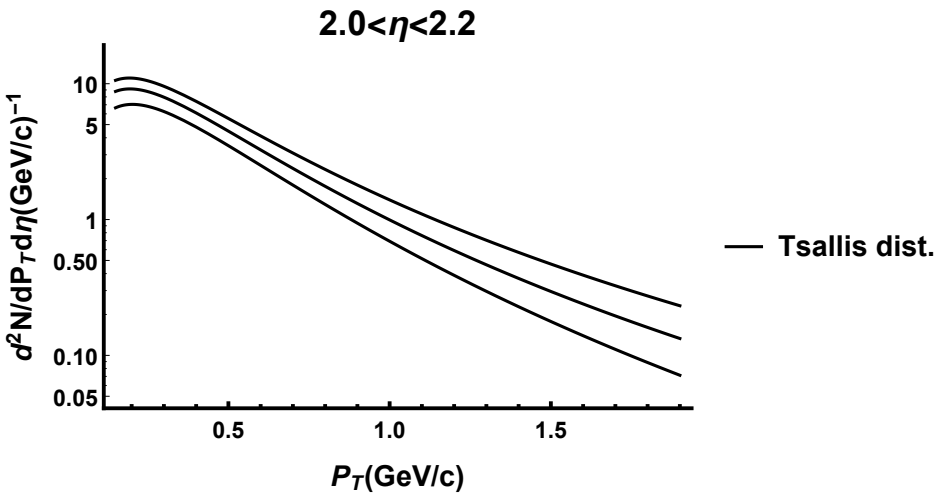
In[1388]:=
```
Show[hd16y, hy5]
```

Out[1388]=



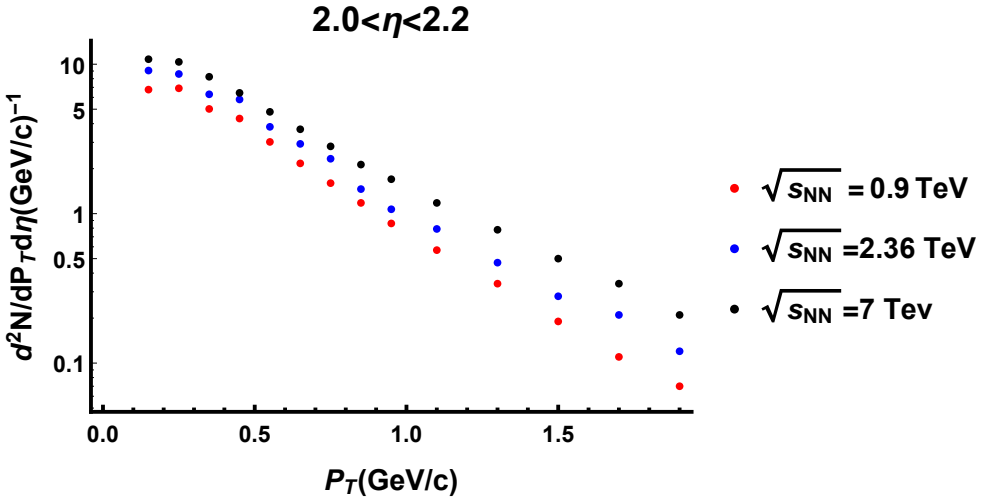
In[1389]:=
```
hy6 = LogPlot[{f[c, pt, 1.13`, T, μ, 2, 0.13957018`] /.
    {c → 1.87778549490366`, T → 0.5518032750646458`, μ → 2.2948193174589`},
   f[c, pt, 1.15`, T, μ, 2, 0.13957018`] /.
    {c → 1.6085480735004598`, T → 0.6038117593748432`, μ → 2.5380355685605878`},
   f[c, pt, 1.167`, T, μ, 2, 0.13957018`] /.
    {c → 1.4281505047069385`, T → 0.6693083202346921`, μ → 2.7781199611484637`}},
  {pt, 0.15, 1.9}, Frame → {{True, False}, {True, False}},
  PlotStyle → {Black}, FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameLabel → {"P_T (GeV/c)", "d^2N/dP_T dη (GeV/c)^-1"},
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "2.0<η<2.2",
  PlotLegends → Placed[{"Tsallis dist."}, Right]]
```

Out[1389]=



In[1390]:=
```
hd22y = ListLogPlot[{pt6y6, pt7y6, pt8y6},
  PlotStyle → {Red, Blue, Black }, FrameTicksStyle → Directive[Bold, Dashed, 12],
  Frame → {{True, False}, {True, False}},
  PlotStyle → {Red, Blue, Black , Gray, Green},
  FrameTicksStyle → Directive[Bold, Dashed, 12],
  FrameStyle → Directive[GrayLevel[0], AbsoluteThickness[2.`]],
  LabelStyle → {Bold, 15}, PlotLabel → "2.0<η<2.2", PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right],
  FrameLabel → {"PT (GeV/c)", "d²N/dPTdη (GeV/c)⁻¹"}, PlotLegends →
   Placed[{"√sNN = 0.9 TeV", "√sNN =2.36 TeV", "√sNN =7 Tev"}, Right]]
```

Out[1390]=



In[1391]:=
```
Show[hd22y, hy6]
```

Out[1391]=