

```
In[1]:= table = Select[Import["~/Dropbox/result.csv", "TSV"], Length[#] > 1 &];
(* should be sorted as: Model, Collider, process, X, Y *)
table2 = #[[{3, 2, 1, 4, 5}]] & /@table;
table2[[All, 5]] = table2[[All, 5]] * 1000;
```

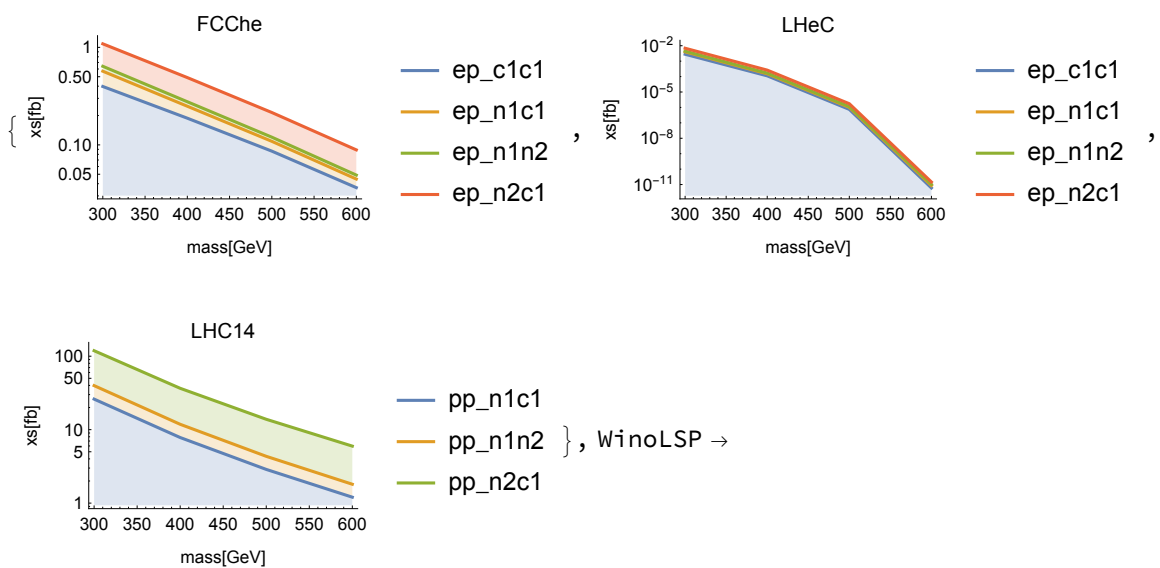
```
In[26]:= AccumulateSecond[a_List] := Module[{first},
  first = a[[All, 1]] // DeleteDuplicates;
  If[Length[first] ≠ 1, Print["Runtime error in accumulation:", a];
  Abort[]];
{first[[1]], #} & /@ Accumulate[a[[All, 2]]]
```

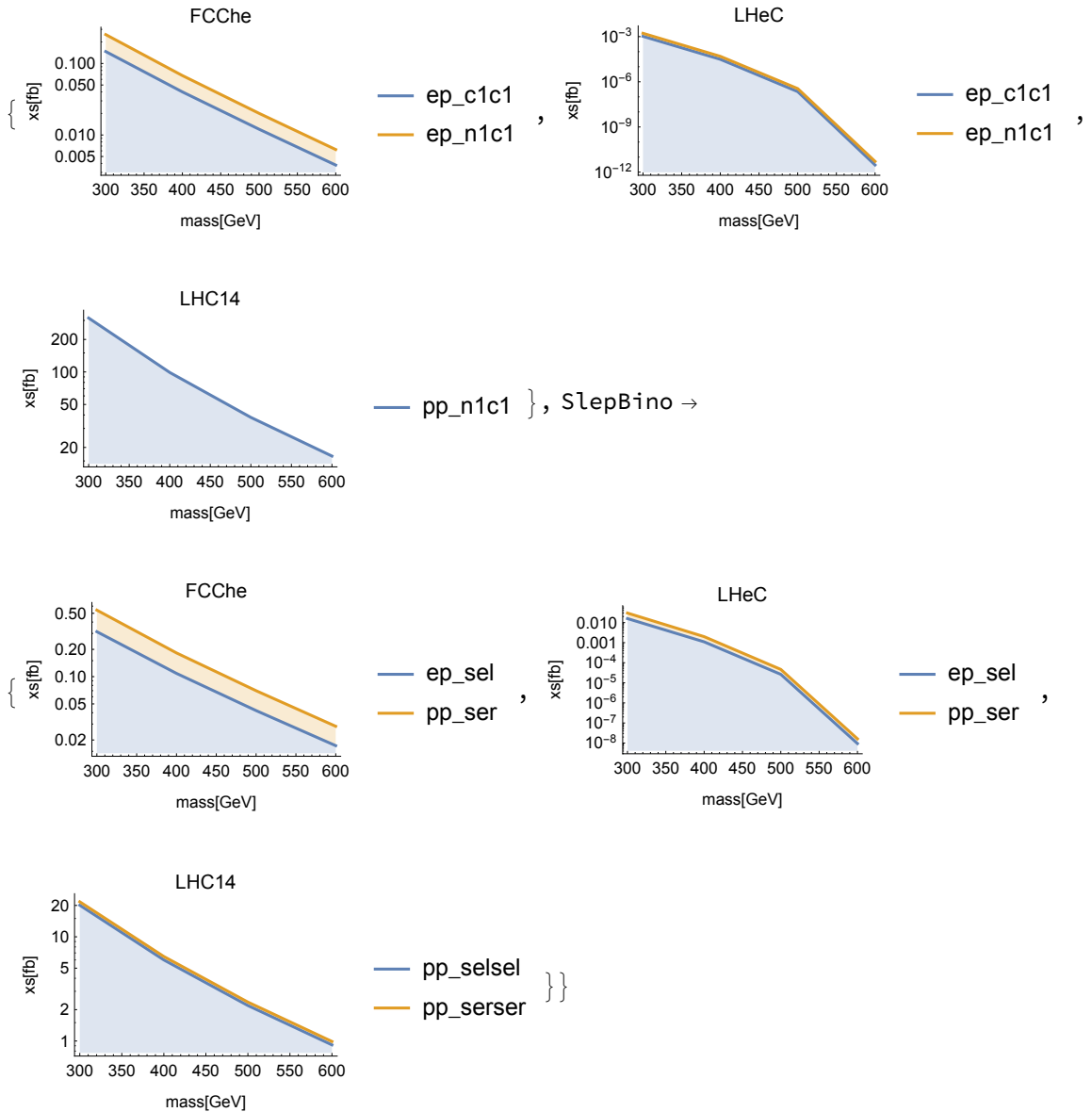
```
PlotsOfModel[Rule[model_, data_]] :=
(model -> PlotsOfModelAtCollider /@ Normal[GroupBy[data, First -> Rest]])
```

```
PlotsOfModelAtCollider[Rule[collider_, data_]] := Module[{
  keys = DeleteDuplicates[data[[All, 1]]],
  list = GroupBy[data, First -> Rest],
  plotdata, plotdataAccumulated
},
plotdata = list /@ keys; (* sort according to keys *)
plotdataAccumulated = Transpose[AccumulateSecond /@ Transpose[plotdata]];
ListLinePlot[plotdataAccumulated,
  PlotLegends -> keys, PlotLabel -> collider, ScalingFunctions -> "Log",
  FrameLabel -> {"mass[GeV]", "xs[fb]"}, Frame -> {True, True, False, False},
  Filling -> {1 -> Axis, 2 -> {1}, 3 -> {2}, 4 -> {3}}]
```

```
PlotsOfModel /@ Normal[GroupBy[table2, First -> Rest]]
```

Out[29]= {HiggsinoLSP ->





```
In[16]:= PlotsOfModelColliderComparison[Rule[model_, data_] := Module[
  {list = GroupBy[data, (#[[{1, 3}]] &) → (#[[{2, 4}]] &)], summed, col, keys},
  summed = Flatten[{{#[[1]], Total[#[[2, All, 2]]]}] & /@ Normal[list];
  col = GroupBy[summed, First → Rest];
  keys = DeleteDuplicates[Normal[col][[All, 1]]];
  col = col /@ keys; (* sort according to keys *)
  ListLinePlot[col, PlotLegends → keys, PlotLabel → model,
    ScalingFunctions → "Log", PlotRange → {All, {1*^-3, 1000}},
    FrameLabel → {"mass[GeV]", "xs[fb]"}, Frame → {True, True, False, False}]]
PlotsOfModelColliderComparison /@ Normal[GroupBy[table2, First → Rest]]
```

