

```

ClearAll["Global`*"]
SetDirectory[NotebookDirectory[]]
C:\Users\Javier\Desktop\Física\Prácticas\Mathematica\Propagación
  MB 3 niveles\MBCPRFiles\Everything in 4000 Loop Files

```

CUIDADO: GUARDAR EL PROGRAMA EN CARPETA PROPIA CON EL FICHERO CREACION DATOS Y PONER LA MISMA J(NUMERO DE ITERACIONES)

```

j = 20;
(*j is the number of loops*)
Doc = 1;
LoopsPerDoc = 4000;
i = 1;
Rabi12 = {};
Rabi23 = {};

Do[
  Clear[iteration, Files];
  iteration = {};
  Files = {};
  iteration = OpenRead[StringJoin["Popu_Cohe_Rabi_", ToString[Doc], ".txt"]];
  Files = Read[iteration];
  Close[StringJoin["Popu_Cohe_Rabi_", ToString[Doc], ".txt"]];

  If[j - LoopsPerDoc * Doc > 0,

    Do[
      Rabi12 = Append[Rabi12, Files[[i, 10]]];
      Rabi23 = Append[Rabi23, Files[[i, 11]]];
      i++,
      {LoopsPerDoc}];

    , (*Coma entre condicion cierta o falsa del IF*)

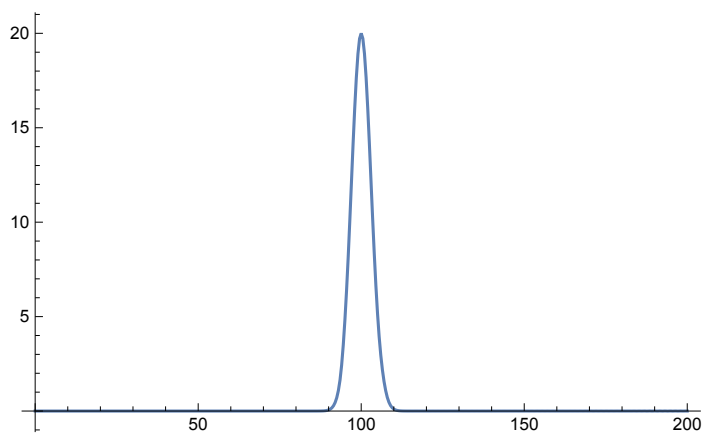
    Do[
      Rabi12 = Append[Rabi12, Files[[i, 10]]];
      Rabi23 = Append[Rabi23, Files[[i, 11]]];
      i++,
      {j - LoopsPerDoc * (Doc - 1)}];
  ];

  Doc++,
  {IntegerPart[j / LoopsPerDoc] + 1}];

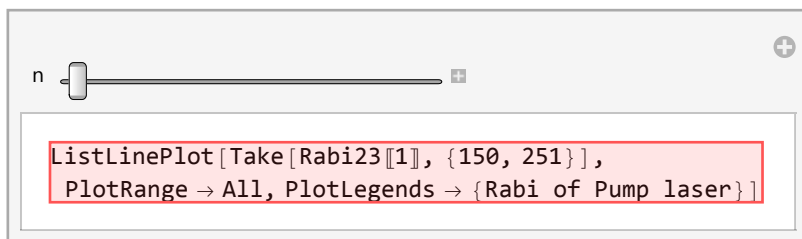
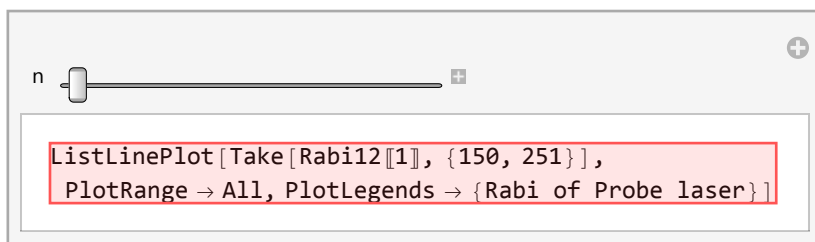
Clear[Files];

```

```
ListLinePlot[{Rabi12[[20]]}, PlotRange → All]
```



```
Manipulate[
  a = Take[Rabi12[[n]], {150, 251}];
  ListLinePlot[a, PlotRange → All, PlotLegends → {"Rabi of Probe laser"}],
  {{n, 1}, 1, j, 1}]
Manipulate[
  a = Take[Rabi23[[n]], {150, 251}];
  ListLinePlot[a, PlotRange → All, PlotLegends → {"Rabi of Pump laser"}],
  {{n, 1}, 1, j, 1}]
```

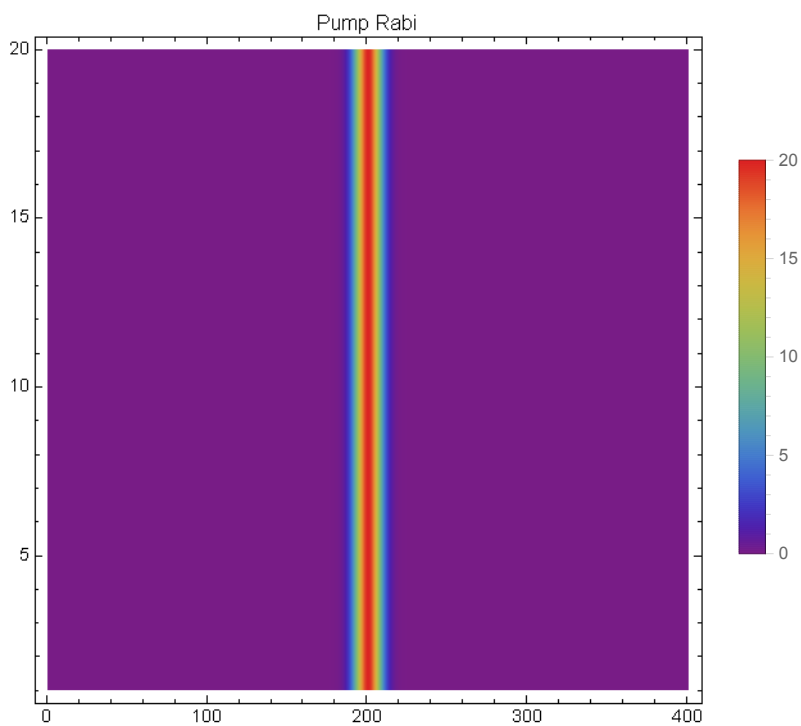
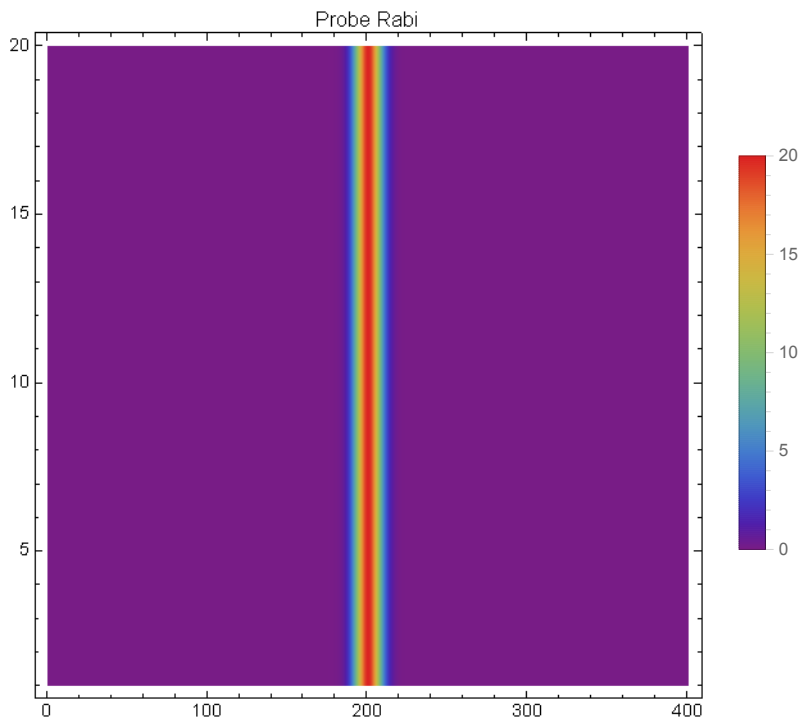


```
Lista2ΩN1 = {};
Lista2ΩN2 = {};
n = 1;
Do[
  Lista2ΩN1 = Append[Lista2ΩN1, Drop[Flatten[Rabi12[[10]]], {1, 802, 2}]];
  Lista2ΩN2 = Append[Lista2ΩN2, Drop[Flatten[Rabi23[[11]]], {1, 802, 2}]];
  n = n + 1,
  {j}];
```

```

ListDensityPlot[Lista2ΩN1, PlotRange → All, PlotLegends → Automatic,
ColorFunction → "Rainbow", PlotLabel → "Probe Rabi"]
ListDensityPlot[Lista2ΩN2, PlotRange → All, PlotLegends → Automatic,
ColorFunction → "Rainbow", PlotLabel → "Pump Rabi"]

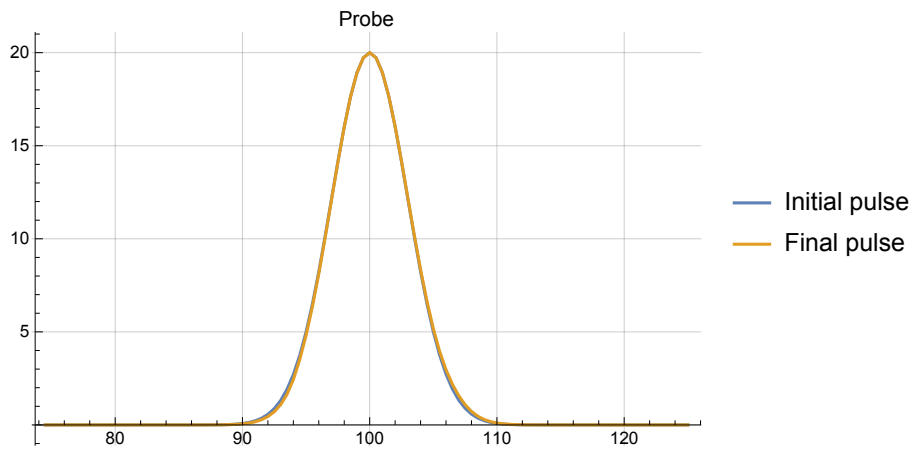
```



```

a = Take[Rabi12[[1]], {150, 251}];
b = Take[Rabi12[[j]], {150, 251}];
ListLinePlot[{a, b}, PlotRange → All, GridLines → Automatic,
  PlotLegends → {"Initial pulse", "Final pulse"}, PlotLabel → "Probe"]

```



```

a = Take[Rabi23[[1]], {150, 251}];
b = Take[Rabi23[[j]], {150, 251}];
ListLinePlot[{a, b}, PlotRange → All, GridLines → Automatic,
  PlotLegends → {"Initial pulse", "Final pulse"}, PlotLabel → "Pump"]

```

