```
ClearAll["Global`*"]
SetDirectory[NotebookDirectory[]]
```

```
C:\Users\Javier\Desktop\Física\Prácticas\Mathematica\Propagación
  MB 3 niveles\MBCPRFiles\Everything in 4000 Loop Files
```

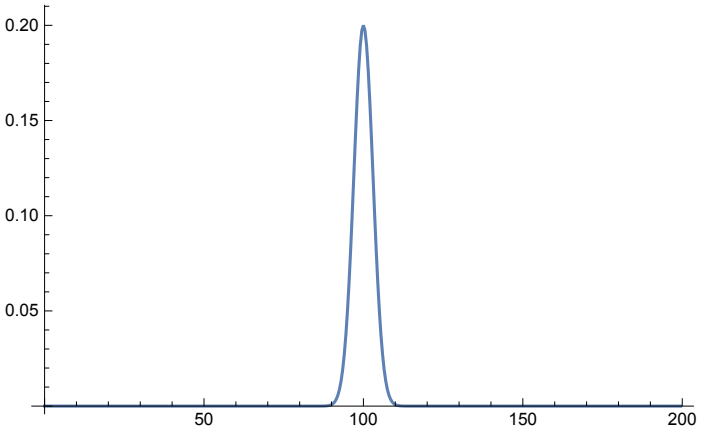
```
ħ = 1 × 10^-25; (*J·ns*)
μ12 = 8 * 3.33 * 10^-24;
(*momento dipolar electrico------Bario----8 Debye(Debye=3.33 10^-24 C·μm)----*)
μ23 = 0.2 * 3.33 * 10^-24;(*momento dipolar electrico----Bario----0.2 Debye------*)
c = 3 × 10^5; (*μm/ns*)
ϵ0 = 8.8541 × 10^-18;(*in F/μm*)
```

CUIDADO: GUARDAR EL PROGRAMA EN CARPETA PROPIA CON EL FICHERO LECTURA DATOS

CUIDADO: CUANDO SE ABORTE EL PROGRAMA, CORRER EL CIERRE DEL FICHERO EN LA ULTIMA LINEA O NO SE GUARDARÁN LOS DATOS EN POSTERIORES EJECUCIONES DEL PROGRAMA

```
j = 200;
(*j is the number of loops*)
LONG = 1; (*in μm*)
ξi = LONG / (j);
paso = LONG / (j);
```

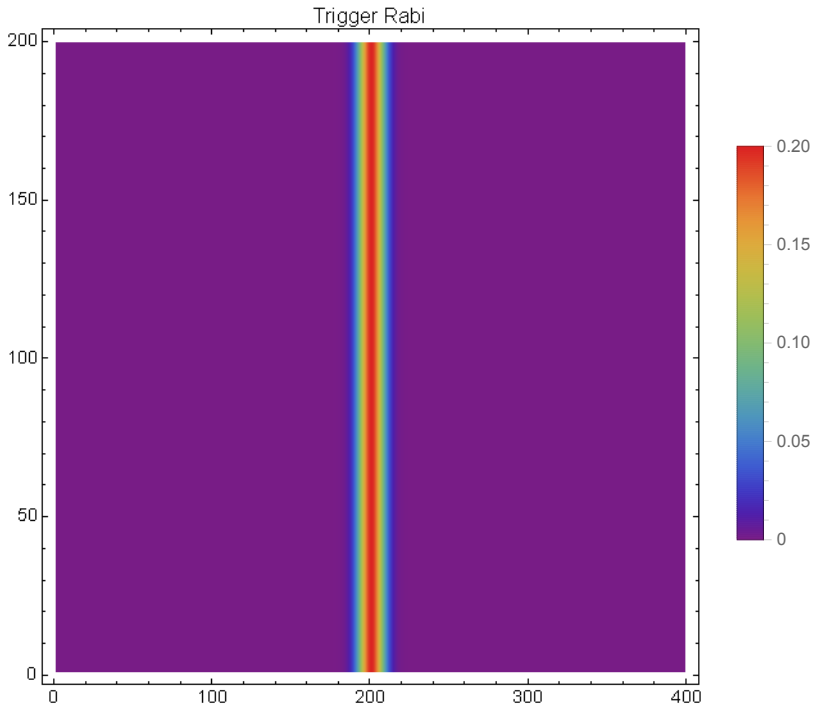
```
iteration = {};
iteration = OpenRead[StringJoin["Trigger_and_Generated_.txt"]];
Files = Read[iteration];
ListLinePlot[{Files[[1, 1]]}, PlotRange → All]
Close[StringJoin["Trigger_and_Generated_.txt"]];
```

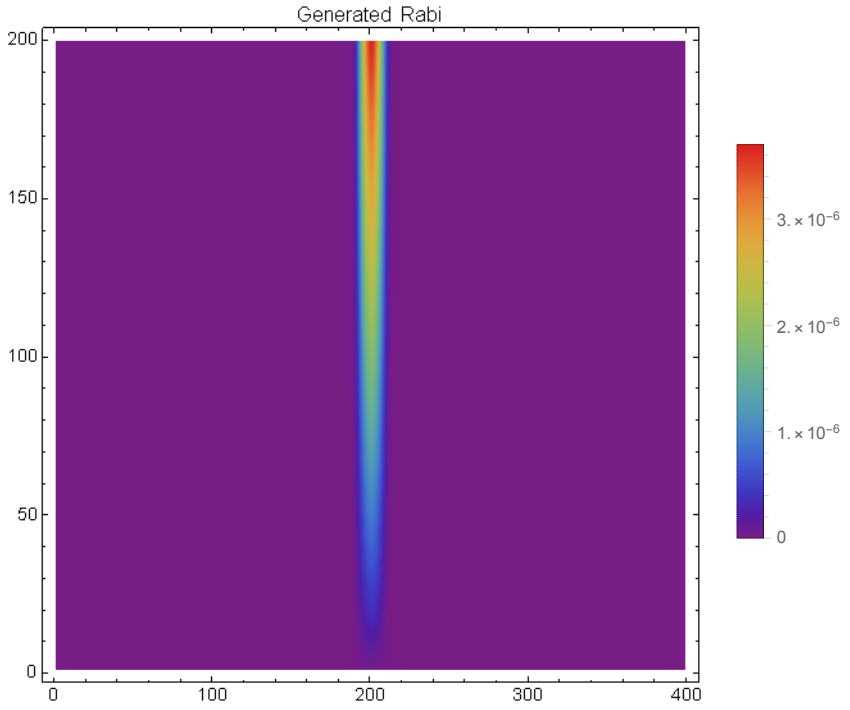



```
(*Manipulate[
  a=Take[Files[[n,1]]];
  ListLinePlot[a,PlotRange→All, PlotLegends→{"ΩE"}],{{n,1},1,j,1}]
 Manipulate[
  a=Take[Files[[n,2]]];
  ListLinePlot[a,PlotRange→All, PlotLegends→{"ΩH"}],{{n,1},1,j,1}]*)
```

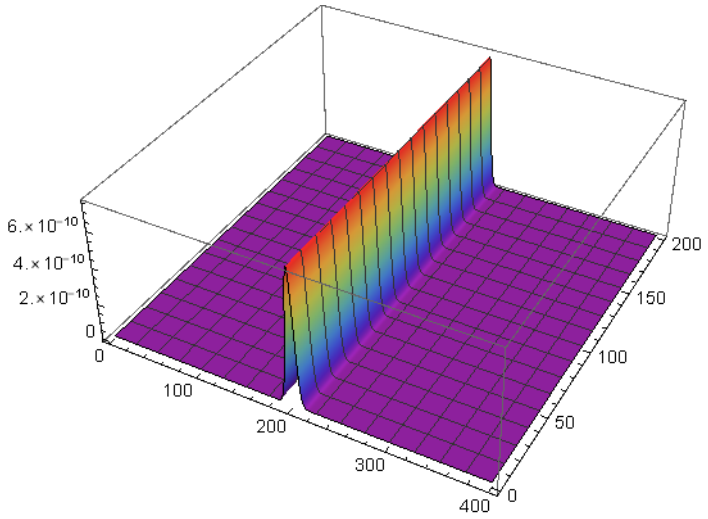
```
Lista2ΩE = {};
Lista2ΩH = {};
ListaN = {};
n = 1;
Do[
  Lista2ΩE = Append[Lista2ΩE, Drop[Flatten[Files[[n, 1]]], {1, 800, 2}]];
  Lista2ΩH = Append[Lista2ΩH, Drop[Flatten[Files[[n, 2]]], {1, 800, 2}]];
  ListaN = Append[ListaN, n];
  n = n + 1,
  {j}];
```

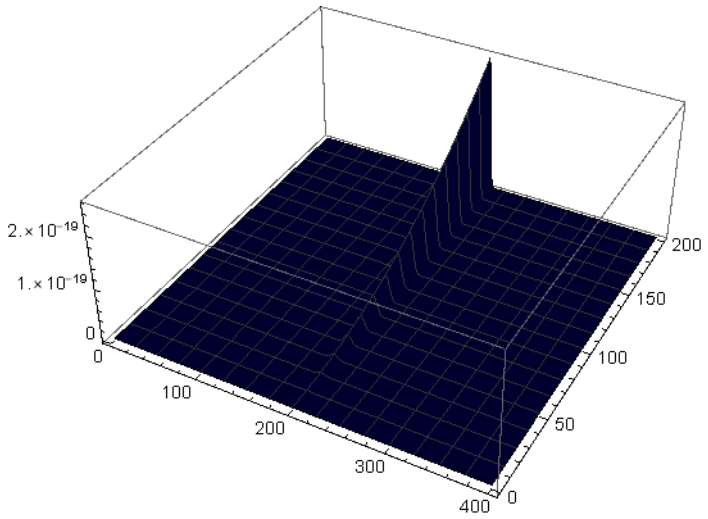
```
ListDensityPlot[Lista2ΩE, PlotRange → All, PlotLegends → Automatic,
 ColorFunction → "Rainbow", PlotLabel → "Trigger Rabi"]
ListDensityPlot[Lista2ΩH, PlotRange → All, PlotLegends → Automatic,
 ColorFunction → "Rainbow", PlotLabel → "Generated Rabi"]
```





```
ListPlot3D[{10^9 c / 2 ϵ0 (ħ Lista2ΩE / μ12) ^2, Drop[Flatten[Files[[1, 1]]], {2, 800, 2}],
  ListaN}, PlotRange → All, ColorFunction → "Rainbow"]
ListPlot3D[{10^9 c / 2 ϵ0 (ħ Lista2ΩH / μ12) ^2, Drop[Flatten[Files[[1, 1]]], {2, 800, 2}],
  ListaN}, PlotRange → All, ColorFunction → "Rainbow"]
```






```
(*Manipulate[
 IE=Partition [Riffle[Take[Drop[Flatten[Files[[n,1]]],{2,800,2}]],
    10^21 c/(2*μ12) ϵ0 ħ Take[Drop[Flatten[Files[[n,1]]],{1,800,2}]]],2,2];
 ListLinePlot[IE,PlotRange→All, PlotLegends→{"IE"}],{{n,1},1,j,1}]*)

(*Manipulate[
 IH=Partition [Riffle[Take[Drop[Flatten[Files[[n,2]]],{2,800,2}]],
    10^21 c/(2*μ12) ϵ0 ħ Take[Drop[Flatten[Files[[n,2]]],{1,800,2}]]],2,2];
 ListLinePlot[IH,PlotRange→All, PlotLegends→{"IH"}],{{n,1},1,j,1}]*)
```