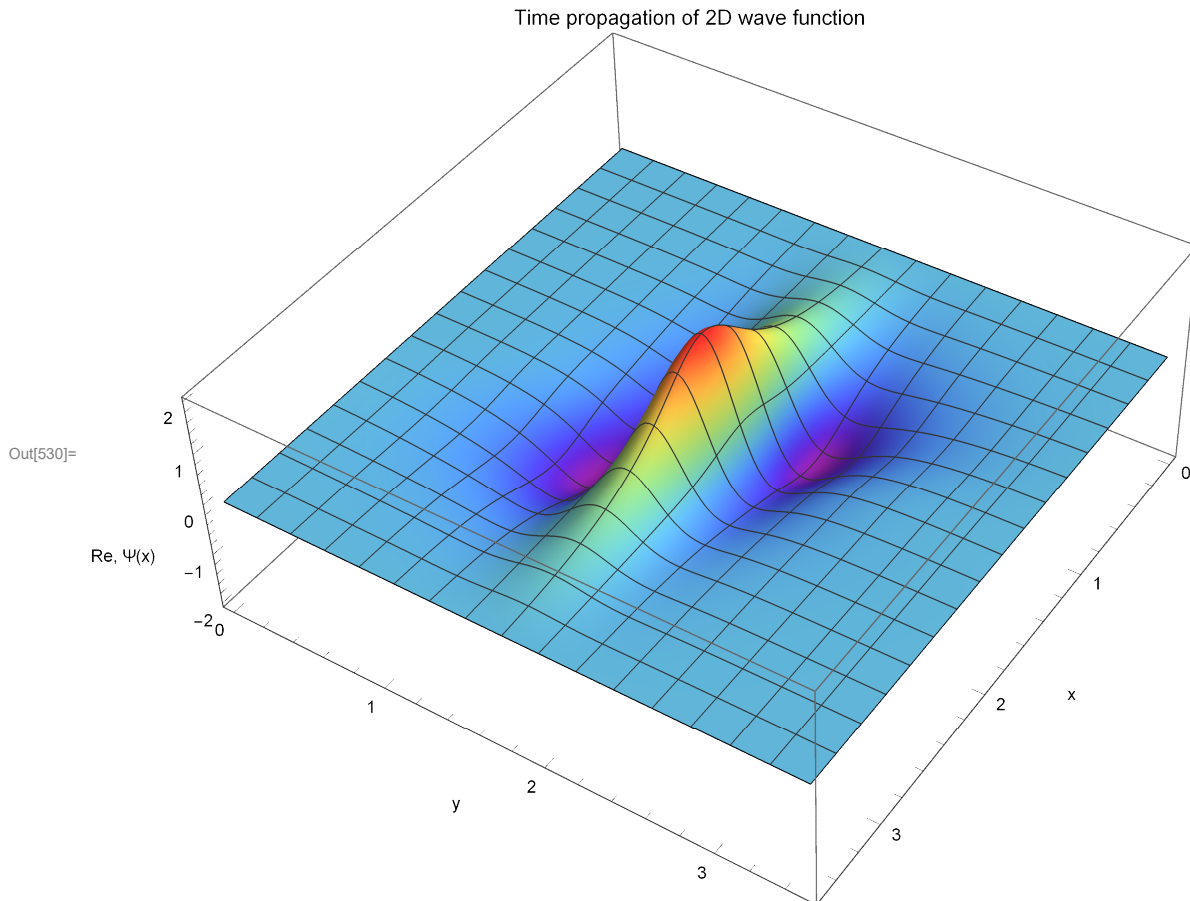


```
In[489]:= Data5 = Import["C:\\Users\\daniils\\Desktop\\code\\ureca\\SS_1D\\Sinc2D\\plots.txt",  
    "Table", "HeaderLines" → 1];
```

```
In[530]:= ListPlot3D[Data5, PlotRange → {{0, 3.5}, {0, 3.5}, {-2, 2}},  
    PlotLabel → "Time propagation of 2D wave function",  
    AxesLabel → {"x", "y", "Re,  $\Psi(x)$ "}, PlotStyle → {Opacity[1.0]},  
    ImageSize → Large, ColorFunction → "Rainbow", ViewPoint → {3.5, 2, 1}]
```



```
In[509]:= E1 = 0.63845041096884692;  
E2 = 0.76843683058709089;  
E3 = 0.76945173062182626;  
E4 = 0.78561469494423963;  
E5 = 0.82130120706101795;
```

```
In[514]:= c1 = Sqrt[0.2];  
c2 = Sqrt[0.2];  
c3 = Sqrt[0.2];  
c4 = Sqrt[0.2];  
c5 = Sqrt[0.2]
```

```
Out[514]= 0.447214
```

```

In[537]:= Parallelize[
  plot = Table[Piecewise[{{Data1[[i]][[j]], j == 1}, {Data1[[i]][[j]], j == 2},
    {c1 * Data1[[i]][[j]] * Cos[-E1 t] + c2 * Data2[[i]][[j]] * Cos[-E2 t] +
    c3 * Data3[[i]][[j]] * Cos[-E3 t] + c4 * Data4[[i]][[j]] * Cos[-E4 t] +
    c5 * Data5[[i]][[j]] * Cos[-E5 t], j == 3}}], {i, 1, 14641}, {j, 1, 3}];]

In[541]:= Parallelize[
  tabular = Table[ListPlot3D[plot, PlotRange → {{0, 3.5}, {0, 3.5}, {-2, 2}}, PlotLabel →
    "Time propagation of 2D wave function", AxesLabel → {"x", "y", "Re,  $\Psi(x,y)$ "},
    PlotStyle → {Opacity[1.0]}, ViewPoint → {3.5, 2, 1},
    ImageSize → {1080, 720}, ColorFunction → "Rainbow"], {t, 0, 30, 0.1}];]

In[540]:= Parallelize[ListAnimate[tabular]]

 $\cdots$  Parallelize: ListAnimate[tabular] cannot be parallelized; proceeding with sequential evaluation.

In[542]:= Export[
  "C:\\Users\\daniils\\Desktop\\code\\ureca\\SS_1D\\Sinc2D\\harmonic.avi", tabular]

Out[542]:= C:\Users\daniils\Desktop\code\ureca\SS_1D\Sinc2D\harmonic.avi

```