```
Plot[
   {2 \[Xi]^2 Exp[-2 \[Xi]^2], 4 \[Xi]^2 Exp[-2 \[Xi]^2], 0},
      {\[Xi], -2, 2},
   PlotLegends -> {"distinguishable", "bosons", "fermions"}]
```

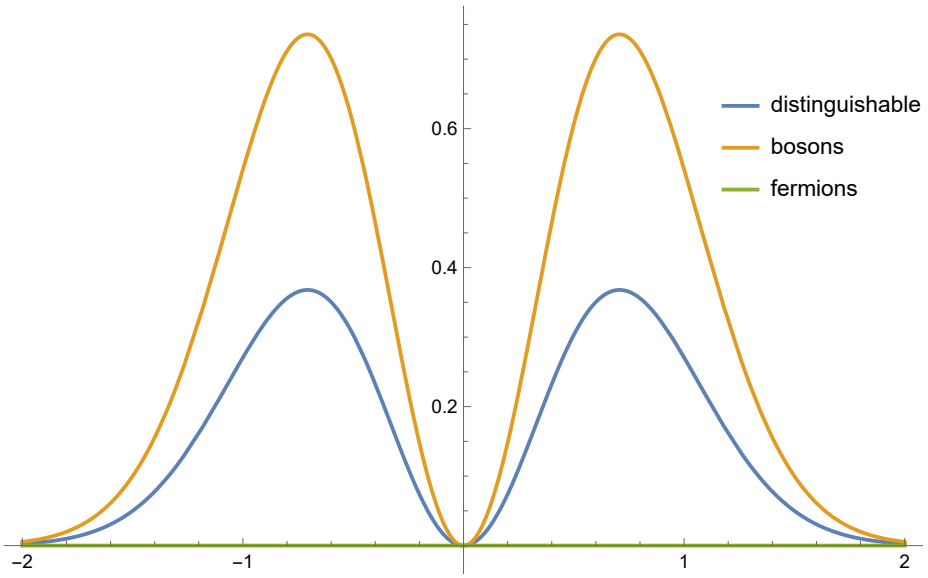


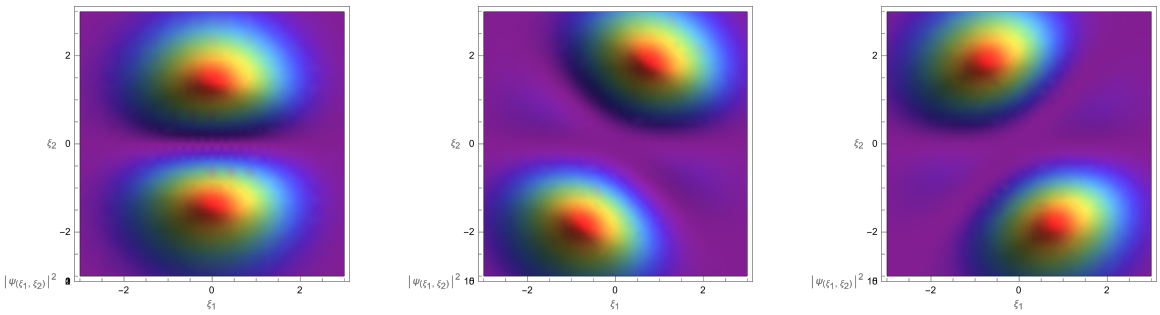
Figure 1: placeholder

```
distinguishable = Plot3D[4 xi2^2 Exp[-xi1^2/2 - xi2^2/2], {xi1,
   -3, 3}, {xi2, -3, 3}, AxesLabel -> {Subscript[\[Xi], 1],
   Subscript[\[Xi], 2], Superscript[Abs[Subscript[\[Psi], Row
   [{"(", Subscript[\[Xi], 1], ", ", Subscript[\[Xi], 2], ")
   "}]]], 2]}, PlotStyle -> {Opacity[1], Blue}, Mesh -> None,
   PlotRange -> All, ColorFunction -> Function[{x, y, z},
   ColorData["Rainbow"][z]], ColorFunctionScaling -> True, Mesh
    -> None, ViewPoint -> {0, 0, Infinity}]
```

```
bosons = Plot3D[4 xi2^2 Exp[-xi1^2/2 - xi2^2/2] (xi1 + xi2)^2, {
   xi1, -3, 3}, {xi2, -3, 3}, AxesLabel -> {Subscript[\[Xi],
   1], Subscript[\[Xi], 2], Superscript[Abs[Subscript[\[Psi],
   Row[{"(", Subscript[\[Xi], 1], ", ", Subscript[\[Xi], 2], ")
   "}]]], 2]}, PlotStyle -> {Opacity[1], Blue}, Mesh -> None,
   PlotRange -> All, ColorFunction -> Function[{x, y, z},
   ColorData["Rainbow"][z]], ColorFunctionScaling -> True, Mesh
    -> None, ViewPoint -> {0, 0, Infinity}]
```

```
fermions = Plot3D[4 xi2^2 Exp[-xi1^2/2 - xi2^2/2] (xi1 - xi2)^2,
    {xi1, -3, 3}, {xi2, -3, 3}, AxesLabel -> {Subscript[\[Xi],
```

```
1], Subscript[\[Xi], 2], Superscript[Abs[Subscript[\[Psi],
Row[{"(", Subscript[\[Xi], 1], ", ", Subscript[\[Xi], 2], ")
"}]]], 2]}, PlotStyle -> {Opacity[1], Blue}, Mesh -> None,
PlotRange -> All, ColorFunction -> Function[{x, y, z},
ColorData["Rainbow"][z]], ColorFunctionScaling -> True, Mesh
 -> None, ViewPoint -> {0, 0, Infinity}]
```



(a) Distinguishable particles (b) Bosons (c) Fermions

Figure 2: placeholder