

Example Code:

```
ClearAll["Global`*"]
k0 = 1; Sigmak = k0/10; Deltak = Sigmak/10; c = 1; d = -0.1; m0 = 30;
Fig1 = Plot[Sum[Exp[-(m*Deltak)^2/(2 Sigmak^2)] Cos[(k0 + m*Deltak) * x - (c * (k0 + m*Deltak) + d * (k0 + m*Deltak)^3) * 0]], {m, -m0, m0, 1}], {x, -50, 350},
  PlotRange -> All, PlotStyle -> Green];
Fig2 = Plot[Sum[Exp[-(m*Deltak)^2/(2 Sigmak^2)] Cos[(k0 + m*Deltak) * x - (c * (k0 + m*Deltak) + d * (k0 + m*Deltak)^3) * 100]], {m, -m0, m0, 1}], {x, -50, 350},
  PlotRange -> All, PlotStyle -> Blue];
Fig3 = Plot[Sum[Exp[-(m*Deltak)^2/(2 Sigmak^2)] Cos[(k0 + m*Deltak) * x - (c * (k0 + m*Deltak) + d * (k0 + m*Deltak)^3) * 200]], {m, -m0, m0, 1}], {x, -50, 350},
  PlotRange -> All, PlotStyle -> Red];
Fig4 = Plot[Sum[Exp[-(m*Deltak)^2/(2 Sigmak^2)] Cos[(k0 + m*Deltak) * x - (c * (k0 + m*Deltak) + d * (k0 + m*Deltak)^3) * 300]], {m, -m0, m0, 1}], {x, -50, 350},
  PlotRange -> All, PlotStyle -> Orange, AxesLabel -> {"x", "Psi"}];
Show[Fig1, Fig2, Fig3, Fig4]
```

