

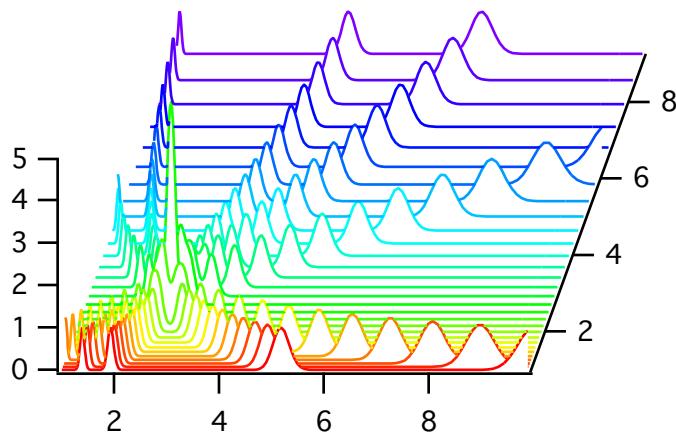
Chapter II-13 — Graphs

```
Function UnvenlySpacedWaterfallPlot()
    // Create matrix for waterfall plot
    Make/O/N=(200,30) mat2
    SetScale x,-3,4,mat2           // Scaling is needed only to generate
    SetScale y,-2,3,mat2           // the fake data
    mat2=exp(-((x-y)^2+(x+3+y)^2))
    mat2=exp(-60*(x-1*y)^2)+exp(-60*(x-0.5*y)^2)+exp(-60*(x-2*y)^2)
    mat2+=exp(-60*(x+1*y)^2)+exp(-60*(x+2*y)^2)
    SetScale x,0,0,mat2           // Scaling no longer needed because we will
    SetScale y,0,0,mat2           // use X and Y waves in waterfall plot

    // Make X and W waves
    Make/O/N=200 xWave = 10^(p/200)
    Make/O/N=30 yWave = 10^(p/30)

    // Create waterfall plot
    NewWaterfall /W=(21,118,434,510) mat2 vs {xWave,yWave}
    ModifyWaterfall angle=70, axlen= 0.6, hidden= 3

    // Apply color as a function of Z
    Duplicate mat2,mat2ColorIndex
    mat2ColorIndex=y
    ModifyGraph zColor(mat2)={mat2ColorIndex,*,*,Rainbow}
End
```



Fake Waterfall Plots

Creating a real waterfall plot requires a 2D wave. If your data is in the form of 1D waveforms or XY pairs, it may be simpler to create a "fake waterfall plot".

In a fake waterfall plot, you plot your waveform or XY data using a regular graph and then create the waterfall effect by offsetting the traces. Since fake waterfall plots use regular Igor traces, you can control their appearance the same as in a regular graph.

The result, with hidden line removal, looks like this: