

waterfall traces. For example, if you change the color in the dialog, then all of the waterfall traces will change to the same color. If you want each of the traces to have a different color, then you will need to use a separate wave to specify (as $f(z)$) the colors of the traces. See the example in the next section for an illustration of how this can be done.

The X and Z axes of a waterfall are always at the bottom and left while the Y axis runs at a default 45 degrees on the right-hand side. The angle and length of the Y axis can be changed using ModifyWaterfall. Except when hidden lines are active, the traces are drawn in back to front order. Note that hidden lines are active only when the trace mode is lines between points.

Marquee expansion is based only on the bottom and right (waterfall) axes. The marquee is drawn as a box with the bottom face in the ZY plane at z_{min} and the top face is drawn in the ZY plane at z_{max} .

Cursors may be used and the readout panel provides X, Y and Z axis information. The hcsr and xcsr functions are unchanged; the vcsr function returns the Y data value (waterfall) and the zcsr returns the data (Z axis) value.

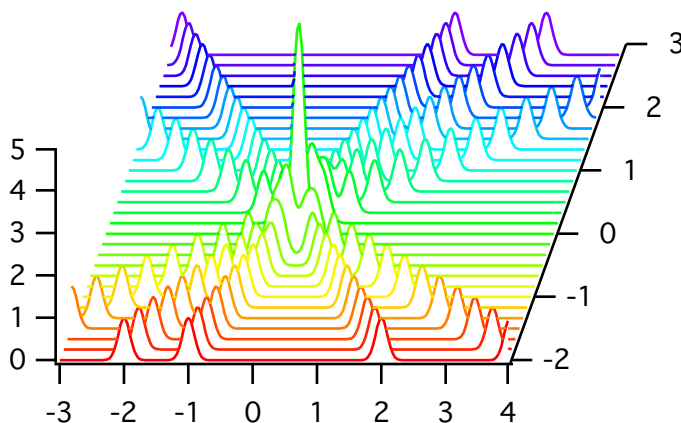
Evenly-Spaced Waterfall Plot Example

In this example we create a waterfall plot with evenly-spaced X and Y values that come from the X and Y scaling of the matrix being plotted.

```
Function EvenlySpacedWaterfallPlot()
// Create matrix for waterfall plot
Make/O/N=(200,30) mat1
SetScale x,-3,4,mat1
SetScale y,-2,3,mat1
mat1=exp(-(x-y)^2+(x+3+y)^2)
mat1=exp(-60*(x-1*y)^2)+exp(-60*(x-0.5*y)^2)+exp(-60*(x-2*y)^2)
mat1+=exp(-60*(x+1*y)^2)+exp(-60*(x+2*y)^2)

// Create waterfall plot
NewWaterfall /W=(21,118,434,510) mat1
ModifyWaterfall angle=70, axlen= 0.6, hidden= 3

// Apply color as a function of Z
Duplicate mat1,mat1ColorIndex
mat1ColorIndex=y
ModifyGraph zColor(mat1)={mat1ColorIndex,*,*,Rainbow}
End
```



Unevenly-Spaced Waterfall Plot Example

In this example we create a waterfall plot with unevenly-spaced X and Y values that come from separate 1D waves.