

CW apf (Audio Peaking Filter)

This function is the compliment to most filtering that tries to reduce audio levels. In contrast the apf provides gain defined by a Gaussian curve centered on the CW pitch, that is, the gain rolls off smoothly from the peak.

It is invoked by the command `\apf gain width`

where the gain is linear and the width parameter controls how slowly the gain falls from the peak. Both values are floats.

Too high a gain or too narrow a width will induce unpleasant artifacts. I suggest gains from 4 to 8 and a width of about 100. Try it out to find what's bet for you.

To disable the function enter `\apf` with no arguments.

Here is a plot of a gain function with gain 4 and width 100. The sBitx operates in the frequency domain with bins of frequencies that are about 47 Hz wide. In this graph and the sBitx function gains are evaluated at bin centers and applied to a bin. You can see that this curve is around the bin center at about 680 Hz. The present sBitx function uses 9 bins, a center and 4 on each side, and has a gain floor of 1.0.

