

Signal Processing Stack Exchange is a question and answer site for practitioners of the art and science of signal, image and video processing. It only takes a minute to sign up.

Anybody can ask a question



Anybody can answer

Sign up to join this community

The best answers are voted up and rise to the top



Understanding Voss-McCartney pink noise generation algorithm

Asked 1 year, 4 months ago Active 1 year, 4 months ago Viewed 649 times



I'm implementing the [Voss-McCartney](#) pink noise generation algorithm.

0

If you follow the link above, you can read:



from James McCartney 2 Sep 1999 21:00:30 -0600:



The top end of the spectrum wasn't as good. The cascade of $\sin(x)/x$ shapes that I predicted in my other post was quite obvious. Ripple was only about 2dB up to $F_s/8$ and 4dB up to $F_s/5$. The response was about 5dB down at $F_s/4$ (one of the $\sin(x)/x$ nulls), and there was a deep null at $F_s/2$. (These figures are a bit rough. More averaging would have helped.)

You can improve the top octave somewhat by adding a white noise generator at the same amplitude as the others. Which fills in the diagram as follows:

```

xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
x x x x x x x x x x x x x x x
x  x  x  x  x  x  x  x  x
  x      x      x      x
    x          x
      x              x
        x

```