

First order LPF (aka 1pole LPF)

$$h(pp) := \frac{1}{1+pp}$$

Terminé

$$hl(p) := h\left(\frac{p}{wc}\right)$$


Terminé

 $hl(p)$

$$\frac{wc}{p+wc}$$

$$hl2(z) := hl\left(\frac{2 \cdot fs \cdot (z-1)}{z+1}\right) |_{wc=2 \cdot fs \cdot \tan(\pi \cdot nfc)}$$

Terminé

 $hl2(z)$

$$\frac{\tan(nfc \cdot \pi) \cdot (z+1)}{(\tan(nfc \cdot \pi)+1) \cdot z + \tan(nfc \cdot \pi) - 1}$$

$$hl3(z) := \frac{nfcw \cdot (z+1)}{(nfcw+1) \cdot z + nfcw - 1}$$

Terminé

"where nfcw = tan(nfc·pi) and nfc =fc/fs"

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First order HPF (aka 1pole+1zero HPF)

$$h(p) := \frac{1}{1+pp}$$

Terminé

$$hh(p) := h\left(\frac{wc}{p}\right)$$


Terminé


$$hh(p)$$

$$\frac{p}{p+wc}$$

$$hh2(z) := hh\left(\frac{2 \cdot fs \cdot (z-1)}{z+1}\right) |_{wc=2 \cdot fs \cdot \tan(\pi \cdot nfc)}$$

Terminé


$$hh2(z)$$

$$\frac{z-1}{(\tan(nfc \cdot \pi)+1) \cdot z + \tan(nfc \cdot \pi)-1}$$

$$hh3(z) := \frac{z-1}{(nfcw+1) \cdot z + nfcw-1}$$

Terminé

"where nfcw = tan(nfc·pi) and nfc =fc/fs"

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