Computer Music - Languages and Systems (Prof. Fabio Antonacci)
Assignment 5: Distortion effect

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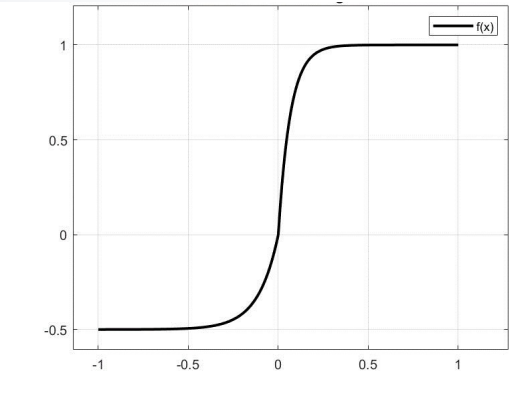
Auto-Destructive Harmonic Distortion

Students: Alberto Doimo, Paolo Ostan, Stefano Donà, Lorenzo Curcio

Distortion functions

$$f(x) = \begin{cases} -0.5 * \left(1 - e^{(g+1)*3x}\right) & -1 \le x \le 0 \\ 1 - e^{(g+1)*5x} & 0 < x \le 1 \end{cases}$$

$$z(x) = gf(x) + (1 - g)x$$



Distortion function (g = 1)

Distortion functions

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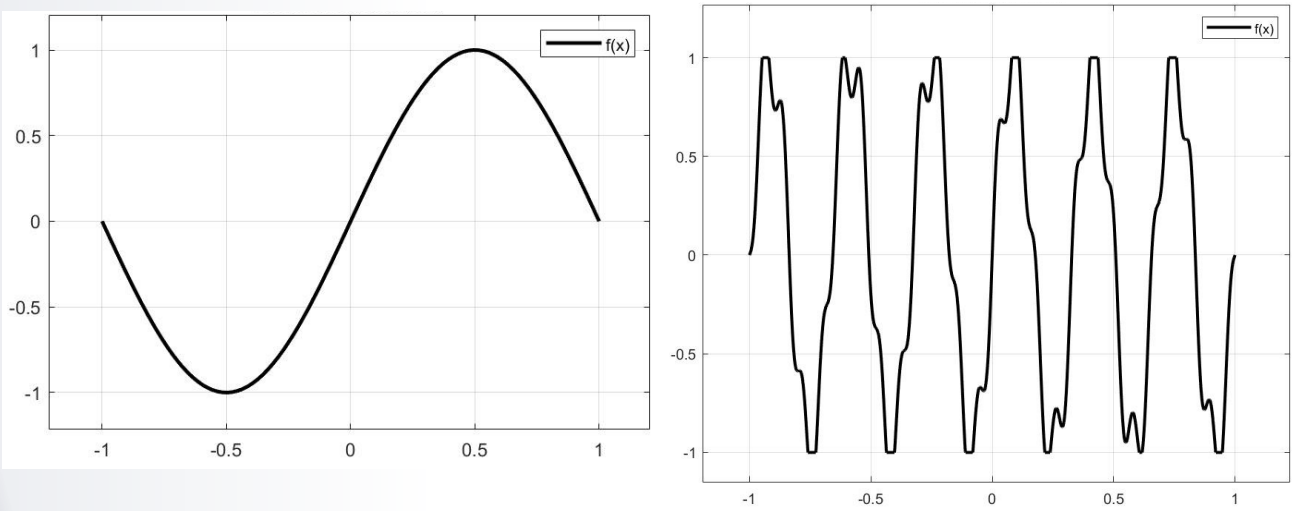
$$f(x) = \sin((1+g)\,\pi x) + 0.2\sin(g(2\pi x))$$



Destroy function (gain = 0 and gain = 5)

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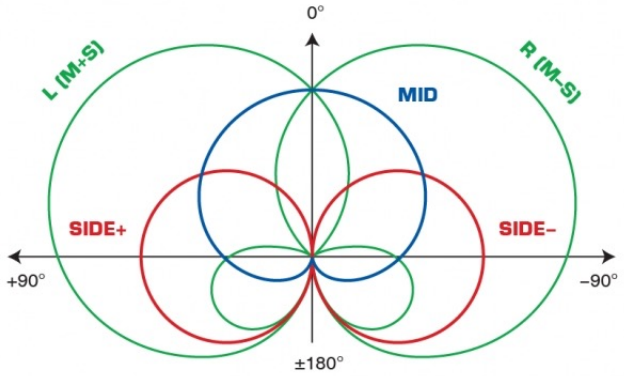
Stereo Processing

Selector

Channel division



Stereo field representation

Filtering


Filter type selection
Cutoff frequency
Filter's Q-factor
Post-processing LPF
AUTO DESTRUCTIVE HARMONIC DISTORTION
ON
L
R
FREQ
Q
GAIN
TONE
VOLUME
WET
LR
MS
IN
OUT
DESTRUCTION
DESTROY

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THANKS FOR THE ATTENTION

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