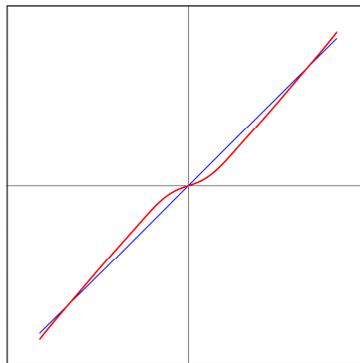


Crossover Distortion

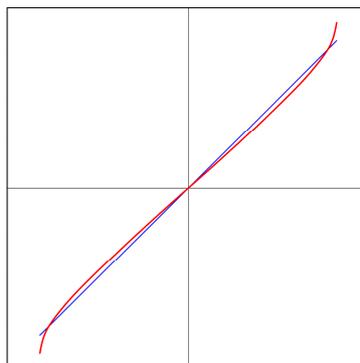
Contents

The file moir.zip contains five Wave files and this PDF file. The first audio file, 'piano original.wav', is a piano recording from the EBU's SQAM (Sound Quality Assessment Material CD). The remaining four files are versions of this original which have been processed to simulate various forms of distortion. Those entitled 'piano * alternating polarity.wav' (three files) simulate crossover distortion based on the 'detectable', 'just detectable' and 'unacceptable' spectra provided in: J Moir, 'Crossover Distortion in Class AB Amplifiers', Audio Engineering Society 50th Convention, March 1975 (available online from <http://www.aes.org/e-lib/>). The last file, 'piano unacceptable, all positive harmonic phase.wav' generates exactly the same pattern of harmonic distortion at peak level as the equivalent 'alternating polarity' file but does not have zero-crossing nonlinearity and so is not representative of crossover distortion.

Transfer characteristics for these two files are shown below (red traces), with the blue line showing the perfect result for zero added distortion:



Alternating polarity



All positive polarity

More details can be found in HIFICRITIC volume 14 number 1, Jan-Mar 2020.