The following Matlab functions were taken from Queen Mary University of London, Center of Digital Music website [1] :
(http://c4dm.eecs.qmul.ac.uk/audioengineering/compressors/index.html)

and modified according to the needs:

- AnalogPeakDetector.m (original file: PDanalog.m)
- BranchingPeakDetector.m (original file: PDbranching.m)
- BranchingSmoothPeakDetector.m (original file: PDbranchingsmooth.m)
- DecoupledPeakDetector.m (original file: PDdecoupled.m)
- DecoupledSmoothPeakDetector.m (original file: PDdecoupledsmooth.m)

References:

[1] Giannoulis, Dimitrios & Massberg, Michael & Reiss, Joshua. (2012). Digital Dynamic Range Compressor Design—A Tutorial and Analysis. AES: Journal of the Audio Engineering Society. 60.