The Constant-Q Transform Spectral Envelope Coefficients

I. Scope

THE sliding discrete Fourier transform (SDFT) ...
[1], [2]
[3]: NSynth

II. Relevance

The SDFT ...

III. Prerequisites

Basic knowledge of digital signal processing is required to understand this article, in particular, concepts such as the DFT, windowing, and general spectral analysis.

IV. Problem Statement and Solution

A. Problem Statement

The SDFT ...
Equation 1 shows ...

$$\begin{aligned} \underset{0 \leq k < N}{X_k^{(i)}} &= \sum_{n=0}^{N-1} x_{i+n} e^{\frac{-j2\pi nk}{N}} \\ &= \sum_{n=0}^{N-1} x_{i+n} e^{\frac{-j2\pi (n+1)k}{N}} e^{\frac{j2\pi k}{N}} \end{aligned} \tag{1}$$

B. Solution

V. Numerical Example

VI. What We Have Learned

We have shown that ...

VII. Author

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References

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[3] J. Engel, C. Resnick, A. Roberts, S. Dieleman, D. Eck, K. Simonyan, and M. Norouzi, "Neural audio synthesis of musical notes with WaveNet autoencoders," in *34th International Conference on Machine Learning*, Sydney, NSW, Australia, August 6-11 2017.