



SOUND SIGNAL PROCESSING USING COMPLEX DYNAMIC REPRESENTATION (MonPmOR1)

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✳ **Abstract :** In this paper we show that a complex dynamic representation (logenvelope and instantaneous frequency) can be used efficiently to compress the spectrum and band-shift a discrete-time signal. The original method and algorithm conceived here do not violate the amplitude-phase relationships typical of natural sound signals. This is achieved by simultaneous modification via transmapping of the instantaneous amplitude and frequency of a signal.