

ABSTRACT

**AN INITIAL APPLICATION OF PITCH CONTOUR GRAPH
ON A SAMPLE OF VIETNAMESE TRADITIONAL AND FOLK MUSIC**

by

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Difficulties in characterizing Vietnamese traditional and folk music include the aural-oral traditions, the use of movable base note (i.e. *hò*) in wide variations of pentatonic scales, their associated airs and modes, the heterophonic texture when simultaneous improvisations overlap in an ensemble, and the Vietnamese-specific sentence-based poetic structure of the piece, which is sometimes non-metrical. To address these, we present in this paper a pitch/intensity-time graph generator. From a song digital input, a pitch/intensity generator creates a pitch contour. As the music unfolds, perceivable sound is graphed with values on a vertical axis indicating the frequency in *hertz* (Hz), the pitch name in Ellis *cents* (c),

intensity in *decibel* (dB), and values on a horizontal axis indicating time in *millisecond* (ms). Specifically, a northern song of *ca trù* and a southern lullaby will be fed to the pitch/intensity generator. After that their output pitch contours are described and compared. We aim to show the characteristic rhythmic patterns and metrical structure of both musical pieces, while, most importantly, revealing the Vietnamese-specific microtones, both as part of their *điệu* modal systems and their associated *hơi* air patterns, dialect specific linguistic effects as well as the song-specific patterns. All of which will contribute to the cultural preservation and exchange of Vietnam and promote identity and accessibility of Vietnamese traditional music by international scholars.

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SHORT BIOGRAPHIES

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