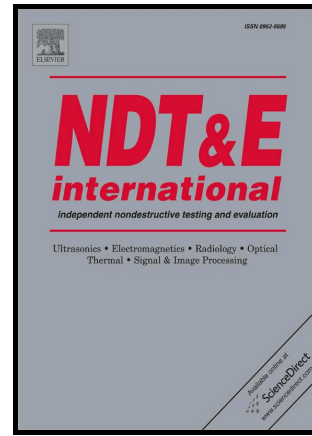


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Evaluation of Pile Defects Using Complex Continuous Wavelet Transform Analysis

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Abstract

In recent years, the technique of wavelet transform has been applied widely in signal processing in different fields, including non-destructive testing of pile foundations. However, it was used mostly in signal filtering and the analysis of time-frequency diagram. This paper successfully utilized complex continuous wavelet transform to determine pile length and locations of defects on pile foundations by analyzing the time-frequency-phase angle diagram in different frequency band. Six piles with different types of defects were installed and tested

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