

# Computer Implemented Empirical Mode Decomposition Method, Apparatus, and Article Of Manufacture For Two-Dimensional Signals

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## DESCRIPTION

This technology is a computer-implemented signal processing method to process image signals of earthquakes. The method involves extracting intrinsic mode function for each profile by empirical mode decomposition. Input signal representative of a physical phenomenon is decomposed into one-dimensional profiles. The profiles are recursively sorted through empirical mode decomposition to extract an intrinsic mode function for each profile indicative of an intrinsic oscillatory mode in the physical phenomenon.

## FEATURES AND BENEFITS

- The technology allows images containing inhomogeneous scales to be accurately separated, analyzed and processed.
- Contrary to almost all the previous methods, this new computer implemented method is intuitive, direct, a posteriori, and adaptive, with the basis of the decomposition based on and derived from the two-dimensional physical signal.

## APPLICATIONS

- Geophysical Analysis for Earthquakes and Tsunamis
- Signal Analysis

## FOR MORE INFORMATION

If you are interested in more information or want to pursue transfer of this technology, GSC-13909-1, please contact:

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