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**Sherman Riemenschneider.** *Ratio Boundary Extension for Empirical Mode Decomposition.*

A new idea about the boundary extension has been introduced and applied to the Empirical Mode Decomposition (EMD) algorithm. Instead of the traditional mirror extension on the boundary, we propose a ratio extension on the boundary. The stop criteria for B-Spline based EMD algorithm is also discussed. Numerical experiments are used for empirically assessing performance of the modified EMD algorithm. The examples indicate that the ratio boundary extension indeed improves the result of the original EMD. (Received September 18, 2009)