Stability for Nonlinear 2-D Multiresolution: The Approach of A.Harten

In this paper a class of multiresolution representation based on nonlinear prediction in 2-D is presented. In contrast with the wavelet framework these representations cannot be consider as a change of basis, and the stability theory requires different considerations. Some error-control algorithms in order to obtain stability are proposed.

Key Words. Multiscale decomposition, Non Linearity, Stability

AMS(MOS) subject classifications. 41A05,41A15.