

COMPARISON AMONG MULTIREOLUTION SCHEMES WITH AND WITHOUT ERROR CONTROL STRATEGIES.

S. Amat, B. María Dolores, and **J. C. Trillo**
Department of Applied Mathematics and Statistics
Universidad Politécnica de Cartagena, Spain
jctrillo@upct.es

Multiresolution representations of data are widely used nowadays in several applications. Nonlinear methods are appropriate to deal with data containing singularities. The stability of nonlinear schemes is usually difficult to check. Thus, one can make use of error control algorithms to ensure it. Other approaches to study the stability of multiresolution schemes are studied in [2] and [1]. In [2] the authors compare Harten error control algorithms ([3]) with the synchronization strategy proposed by Sweldens ([4]). In [1] another possible modification of the Harten error control algorithms is proposed. In this work we analyze the advantages and disadvantages of the different approaches to control the error in comparison with the application of the schemes without any error control strategy.

References

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