1004-42-9   **Bernhard G Bodmann***, 651 Philip G. Hoffman Hall, Department of Mathematics, University of Houston, Houston, TX 77204, and **Manos Papadakis**. *Detecting tissue anomalies in CT data by statistical analysis with isotropic wavelets.*

We describe the result of applying a recently developed isotropic, frame-based wavelet decompositon to CT data obtained from coronary artery specimens. Tissue anomalies such as coronary plaque are identified by statistics of wavelet coefficients. Essential for the feasibility of this analysis are the lack of directional bias in the wavelet decompositon and the implementation by fast algorithms. (Received October 29, 2004)