Joint Segmentation of Bones and Muscles Using an Intensity and Histogram-Based Energy Minimization Approach

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Highlights

- A new energy minimization based approach for segmenting muscles and bones is proposed.
- The proposed algorithm can be applied to surgery planning, disease diagnosis, analysis of fractures and/or bone/muscle densities.
- The proposed energy function includes distance to histogram models of bone/muscle combined with gray-level information.
- The algorithm outperforms other state-of-the art multi-label segmentation schemes.