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Jue Wang* (wangj@union.edu) and **Yongjian Yu**. *Segmentation and Artifact Correction in Ultrasound Images*.

Ultrasound B-scan exhibits shadowing and enhancement artifacts due to acoustic wave propagation and spatially varying attenuation across tissue layers. Estimation of local attenuation coefficients is important for clinical diagnosis and analysis. We will present the mathematical framework of a novel joint estimation method for attenuation compensation and artifact reduction in ultrasound, together with boundary segmentation. Spatial resolution and speckle patterns are retained. Our results give higher quality attenuation compensation compared to several existing techniques using B-mode or RF images. (Received July 09, 2012)