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Measurement of glottal flow across scaled up dynamic vocal fold motion ERICA SHERMAN, RPI, MICHAEL KRANE, Penn State/ARL, TIMOTHY WEI, RPI — Preliminary measurements of flow of water through a scaled-up model of the human vocal folds will be presented. The vocal fold model is a new design, improving upon that of previous work (Krane, Barry, and Wei, *JASA* 2007). The new model preserves the advantages of the previous experimental rig, enabling time-resolved velocity measurements, but is more physiologically accurate in terms of shape and motion. In particular, both the rocking as well as the oscillatory open/close motions are incorporated into the model. In addition, the vocal fold walls are made of flexible PVC, allowing simulation of fluid-structure interactions along the walls. The details of the new design will be presented, as well as preliminary DPIV measurements of the flow.

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