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Right Heart 4DMRI Flow Visualization in Normal and Hypertensive subjects JEAN HERTZBERG, JAMES BROWNING, University of Colorado Boulder, BRETT FENSTER, National Jewish Health and University of Colorado Denver, JOYCE SCHROEDER, University of Colorado Denver — Recent advances in time-resolved 3D cardiac magnetic resonance imaging (4DMRI) have allowed for the 3-dimensional characterization of blood flow in the right ventricle (RV) and right atrium (RA). In this talk, an overview of a large, ongoing, multi-disciplinary investigation of 4D right heart hemodynamics in normal and pathologic patients is given, as well as lessons learned from 4DMRI cardiac research. Time-resolved visualization techniques for understanding and communicating complex right heart flow structures throughout the cardiac cycle are presented. Finally, a qualitative visual comparison of 3D flow structures in the vena cava, RA, and RV between healthy subjects and pulmonary hypertensive patients is presented.

James Browning
University of Colorado Boulder

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