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High-Frame-Rate Displacement Vector Imaging of a Human Carotid Artery

The front cover shows individual frames of a human carotid artery in transverse view that was imaged with high-frame-rate imaging and analyzed with a new vector displacement estimation algorithm, as described in this issue. These displacement vectors are computed using phase delays that can be measured between pairs of elements within an array. By combining multiple element-pair solutions, we find a new robust estimate for the displacement vector. The four B-mode frames with overlaid displacement vectors show a carotid artery at maximum distension velocity (top left), at maximum negative distension (top right), in lateral motion without distension (bottom left), and at maximum distension at the next heart cycle (bottom right). For further reading, please see the accompanying article on page 1733 of this issue.

Images courtesy of Pieter Kruizinga, Frits Mastik, Johan G. Bosch, Nico de Jong, Anton F. W. van der Steen, and Gijs van Soest, Erasmus Medical Center, Thoraxcenter Biomedical Engineering, Rotterdam, The Netherlands.

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