

RELEVANT PUBLICATIONS

The work presented herein has been funded by National Institutes of Health (NIH R21 EB006741) and has been directed by Prof. Michael L. Oelze. Throughout the tenure of this four-year project, the following manuscripts and presentations regarding this work have been published:

- (Invited) D. P. Hruska, J. R. Sanchez, and M. L. Oelze, “Improved diagnostics through quantitative ultrasound imaging,” *Proceedings of the 2009 IEEE Engineering in Medicine and Biology Society*, pp. 1956-1959, 2009.
- J. R. Sanchez, D. Pocchi, and M. L. Oelze, “Use of a novel coded excitation scheme to improve spatial and contrast resolution of quantitative ultrasound imaging,” *IEEE Trans. Ultrason. Ferroelect. Freq. Contr.*, vol. 56, 10, pp. 2111-2123, Oct. 2009.
- J. R. Sanchez and M. L. Oelze, “An ultrasonic imaging speckle-suppression and contrast-enhancement technique by means of frequency compounding and coded excitation,” *IEEE Trans. Ultrason. Ferroelect. Freq. Contr.*, vol. 56, pp. 1327-1339, Jul. 2009.
- J. R. Sanchez, D. Pocchi, and M. L. Oelze, “On the use of coded excitation and pulse compression to reduce estimate errors of average scatterer diameters obtained from ultrasonic backscatter,” *Journal of the Acoustical Society of America*, vol. 125, pp. 2513, 2009.
- J. R. Sanchez and M. L. Oelze, “Improvements in compression of coded excitation echoes by using a spatially varying Wiener filter,” *Journal of the Acoustical Society of America*, vol. 125, pp. 2513, 2009.

- (Invited) M. L. Oelze and J. R. Sanchez, “Improving biomedical ultrasonic imaging systems through coded excitation and pulse compression,” *Journal of the Acoustical Society of America*, vol. 124, pp. 2473, 2008.
- J. R. Sanchez, D. Poggi, and M. L. Oelze, “Using resolution enhancement compression to reduce variance of scatterer size estimates from ultrasonic backscattered signals,” *Proceedings of the 2008 IEEE Ultrasonics Symposium*, pp. 36-39, 2008.
- J. R. Sanchez and M. L. Oelze, “An ultrasonic imaging speckle suppression and contrast enhancement technique by means of frequency compounding and coded excitation,” *Proceedings of the 2007 IEEE Ultrasonics Symposium*, pp. 464-467, 2007.
- J. R. Sanchez and M. L. Oelze, “An ultrasonic imaging speckle suppression technique by means of frequency compounding and coded excitation,” *Journal of the Acoustical Society of America*, vol. 121, pp. 3154, 2007.

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- [5] T. Misaridis and J. A. Jensen, "Use of modulated excitation signals in medical ultrasound. Part I: Basic concepts and expected benefits," *IEEE Trans. Ultrason., Ferroelectr. Freq. Control*, vol. 52, pp. 177-191, Feb. 2005.
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