

# Stanford

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## Marko Jakovljevic

Postdoctoral Research Fellow, Radiology

### Bio

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#### BIO

I have recently joined Dr. Dahl's ultrasound imaging lab as a Postdoctoral Research Fellow. My research interests include coherence imaging, synthetic aperture beamforming, and array signal processing in general.

#### PROFESSIONAL EDUCATION

- Bachelor of Science, University of Texas Austin (2009)
- Doctor of Philosophy, Duke University (2015)

#### STANFORD ADVISORS

- Jeremy Dahl, Postdoctoral Faculty Sponsor

### Research & Scholarship

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#### CURRENT RESEARCH AND SCHOLARLY INTERESTS

I consider myself a medical ultrasound researcher and engineer. My research interests include synthetic aperture beamforming, coherence imaging, and signal processing in general.

### Publications

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#### PUBLICATIONS

- **Blocked Elements in 1-D and 2-D Arrays-Part I: Detection and Basic Compensation on Simulated and In Vivo Targets.** *IEEE transactions on ultrasonics, ferroelectrics, and frequency control*  
Jakovljevic, M., Pinton, G. F., Dahl, J. J., Trahey, G. E.  
2017; 64 (6): 910-921
- **Blocked Elements in 1-D and 2-D Arrays-Part II: Compensation Methods as Applied to Large Coherent Apertures.** *IEEE transactions on ultrasonics, ferroelectrics, and frequency control*  
Jakovljevic, M., Bottenus, N., Kuo, L., Kumar, S., Dahl, J. J., Trahey, G. E.  
2017; 64 (6): 922-936
- **Implementation of swept synthetic aperture imaging** *MEDICAL IMAGING 2015: ULTRASONIC IMAGING AND TOMOGRAPHY*  
Bottenus, N., Jakovljevic, M., Boctor, E., Trahey, G. E.  
2015; 9419
- **Short-Lag Spatial Coherence Imaging on Matrix Arrays, Part II: Phantom and In Vivo Experiments** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*  
Jakovljevic, M., Byram, B. C., Hyun, D., Dahl, J. J., Trahey, G. E.

2014; 61 (7): 1113-1122

- **Short-Lag Spatial Coherence Imaging on Matrix Arrays, Part I: Beamforming Methods and Simulation Studies** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*  
Hyun, D., Trahey, G. E., Jakovljevic, M., Dahl, J. J.  
2014; 61 (7): 1101-1112
- **Ultrasonic Multipath and Beamforming Clutter Reduction: A Chirp Model Approach** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*  
Byram, B., Jakovljevic, M.  
2014; 61 (3): 428-440
- **Transcostal Imaging with Large Coherent Apertures: Ex Vivo Studies** *2014 IEEE INTERNATIONAL ULTRASONICS SYMPOSIUM (IUS)*  
Jakovljevic, M., Kumar, S., Kuo, L., Trahey, G. E.  
2014: 1698-1701
- **IN VIVO APPLICATION OF SHORT-LAG SPATIAL COHERENCE IMAGING IN HUMAN LIVER** *ULTRASOUND IN MEDICINE AND BIOLOGY*  
Jakovljevic, M., Trahey, G. E., Nelson, R. C., Dahl, J. J.  
2013; 39 (3): 534-542
- **Identification and Impact of Blocked Elements in 1-D and 2-D Arrays** *2013 IEEE INTERNATIONAL ULTRASONICS SYMPOSIUM (IUS)*  
Jakovljevic, M., Dahl, J., Trahey, G. E.  
2013: 1288-1291
- **Harmonic Spatial Coherence Imaging: An Ultrasonic Imaging Method Based on Backscatter Coherence** *IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL*  
Dahl, J. J., Jakovljevic, M., Pinton, G. F., Trahey, G. E.  
2012; 59 (4): 648-659
- **Compact beveled fiber optic probe design for enhanced depth discrimination in epithelial tissues** *OPTICS EXPRESS*  
Nieman, L. T., Jakovljevic, M., Sokolov, K.  
2009; 17 (4): 2780-2796