

BIOGRAPHICAL SKETCH

NAME ERNEST J. FELEPPA efeleppa@riversideresearch.org		POSITION TITLE RESEARCH DIRECTOR	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Cornell University, Ithaca, NY	B.A.	1961	Physics
Columbia University, New York, NY	Ph.D.	1968	Biophysics
Columbia University, New York, NY	Post-doctoral	1969	Physiology, Genetics

Positions and Honors

Positions and Employment

2005-Present: Research Director, Lizzi Center for Biomedical Engineering, Riverside Research Institute
 2006-Present: Adjunct Professor, Biomedical Engineering, Columbia University, New York, NY
 2002-present: Adjunct Associate Professor of Surgery, Drexel University College of Medicine
 1998-2005: Assoc. Research Director, Biomedical Engineering Laboratories, Riverside Research Institute
 1990-1998: Manager, Biomedical Engineering Laboratories, Riverside Research Institute
 1989-Present: Adjunct Associate Professor of Surgery, New York Medical College, Valhalla, NY
 1989-2002: Adjunct Associate Professor of Surgery, Medical College of Pennsylvania, Philadelphia, PA
 1989-Present: Adjunct Associate Professor, Pace University, Pleasantville, NY
 1980-1989: Assistant Manager, Biomedical Engineering Laboratories, Riverside Research Institute
 1976-1980: Principal Member Research Staff, Biomedical Engineering Laboratories, Riverside Research Ins
 1973-1976: Assistant Manager, Social Systems Division, Riverside Research Institute
 1969-1980: Member of the Research Staff, Riverside Research Institute
 1969-1972: Outside Investigator, Department of Medical Physics, Sloan-Kettering Institute
 1968-1969: Research Associate, Department of Biological Sciences, Columbia University

Honors and Memberships

College of Fellows, American Institute for Medical and Biological Engineering, 2009
 Recipient of the 2009 Joseph H. Holmes Pioneer Award in Basic Science awarded by the AIUM
 Guest Editor of the Special Issue of *Cancer Biomarkers* on Prostate Imaging, Volume 4 (4-5), (in press)
 Associate Editor, *Ultrasonic Imaging*, Volume 29 (2007) - present
 Guest Editorial, *Ultrasound in Medicine and Biology*, Volume 32, Number 11, 2006
 Guest Editor, *Ultrasonic Imaging*, Volume 28, Numbers 1-4, 2006
 Acoustical Society of America, Member, 1997-present
 American Association of Physicists in Medicine, Member, 1994-present
 American Institute of Ultrasound in Medicine, Fellow, 1994-present
 American Institute of Ultrasound in Medicine, Technical Standards Committee, 1994-1999
 American Institute of Ultrasound in Medicine, Member, 1980-1994
 American Urological Association, Associate Member, 1998-present
 Audio Engineering Society, Member, 1980-present
 Institute of Electrical and Electronics Engineers, Senior Member, 1998-present
 Institute of Electrical and Electronics Engineers, Member, 1982-1998
 Society for Basic Urologic Research, Member, 1999-present
 Society for Urology and Engineering, Member, 1996-present
 American Institute of Ultrasound in Medicine, Manufacturers' Commendation Committee Vice-chairman 1994

Publications

- Mamou, J., Saegusa-Beecroft, M., Coron, A., Oelze, M., Yamaguchi, T., Machi, J., Hata, M., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "Three-dimensional quantitative ultrasound to guide pathologists towards metastatic foci in lymph nodes," *Proc IEEE Eng Med Biol Soc.* 2012, IEEE Piscataway, NJ (in press)
- Yan, Z. Zhang, S., Alam, S.K., Metaxas, D.N., Garra, B.S. and **Feleppa**, E.J., "Modulus reconstruction from prostate ultrasound images using finite element modeling," in *Medical Imaging 2012: Ultrasonic Imaging and Signal Processing*, J. G. Bosch, M. M. Doyley, Editors, Proceedings of SPIE, vol. 8320, 2012 (in press).
- Mamou, J., Coron, A., Saegusa-Beecroft, E., Hata, M., Oelze, M.L., Yanagihara, E., Yamaguchi, T., Laugier, P., Machi J., **Feleppa**, E.J., Quantification of freshly-excised human lymph node tissue using high-frequency ultrasound, pp. 3881-388, Proceedings of the Acoustics 2012 Nantes Conference, 2012, (*Invited*).
- Coron, A., Mamou, J., Saegusa-Beecroft, E., Oelze, M.L., Yamaguchi, T., Hata, M., Machi, J., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "A quantitative ultrasound-based method and device for reliably guiding pathologists to metastatic regions of dissected lymph nodes," 2012 IEEE International Symposium on Biomedical Imaging, 1064-1067, 2012.
- Alam, S.K., Mamou, J., **Feleppa**, E.J., Kalisz, A., and Ramachandran, S., "Comparison of template-matching and singular-spectrum-analysis methods for imaging implanted brachytherapy seeds," *IEEE Trans Ultrason Ferroelectr Freq. Control*, 58(11):2484, 2011.
- Mamou, J., Saegusa-Beecroft, M., Coron, A., Oelze, M., Yamaguchi, T., Machi, J., Hata, M., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "Three-dimensional high-frequency characterization of freshly-excised human lymph nodes, in *Proc.2011 IEEE-Int. Ultrasonics Symp.*, pp. 37-40.
- Hata, M., Machi, J., Mamou, J., Yanagihara, E.T., Saegusa-Beecroft, E. Kobayashi, G.K., Wong, C.C., Fung, C., **Feleppa**, E.J., Sakamoto, K., "Entire-volume serial histological examination for detection of micro-metastases in lymph nodes of colorectal cancers," *Pathology & Oncology Research. Pathol. Oncol. Res.*, 17(4):835-841, 2011. PMID: 21494849
- Alam, S.K., **Feleppa**, E.J., Rondeau, M., Kalisz, A., and Garra, B.S., "Computer-Aided Diagnosis of Solid Breast Lesions Using an Ultrasonic Multi-Feature Analysis Procedure," in Proceedings of BIPA Regional Conference on Medical Physics, K. S. Rabbani, Editor, pp. 1-10, 2011.
- Alam, S.K., **Feleppa**, E.J., Rondeau, M., Kalisz, A. and Garra, B.S., "Ultrasonic multi-feature analysis procedures for computed-aided diagnosis of solid breast lesions," *Ultras. Imag.*, 33:17-38, 2011.
- Feleppa**, E.J., Mamou, J., Machi, J., Hata, M., Coron, A., Yanagihara, E., Laugier, P., "Ultrasonic detection of metastases in dissected lymph nodes of cancer patients," in: *Acoustical Imaging Vol. 30, Part 1*, M. Andre, H. Lee, J. Jones (Eds.), Springer Science+Business Media B.V., Dordrecht, 2011, pp. 17-27.
- Mamou, J., Coron, Oelze, M., A., Saegusa-Beecroft, E., Hata, M., Lee, P., Machi, J., Yanagihara, E., Laugier, P., and **Feleppa**, E.J., "Three-dimensional high-frequency backscatter and envelope quantification of cancerous human lymph nodes," *Ultrasound Med. Biol.*, 37(3):345-357, 2011. PMID: PMC3062193
- Feleppa**, E.J., Mamou, J., Porter, C.R., and Machi, J., "Quantitative ultrasound in cancer imaging," *Seminars in Oncol.* 38(1):136-150, 2011. PMID: PMC 3057450
- Mamou, J., Coron, A., Oelze, M.L., Saegusa-Beecroft, E., Hata, M., Machi, J., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "Three-dimensional high-frequency spectral and envelope quantification of excised human lymph nodes," in *2010 IEEE Ultrasonics Symposium*, pp. 604-607.
- Coron, A., Mamou, J., Saegusa-Beecroft, E., Hata, M., Lee, P., Machi, J., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "Assembling 3D histology volumes from sections of cancerous lymph nodes to match 3D high-frequency quantitative ultrasound images," in *2010 IEEE Ultrasonics Symposium*, pp. 2368-2371.
- Mamou, J., Coron, A., Hata, M., Machi, J., Yanagihara, E., Laugier, P., Yamaguchi, T., and **Feleppa**, E.J., "Metastases detection in dissected human lymph nodes using three-dimensional high-frequency ultrasound", in *Proceedings of the 30th Symposium on UltraSonic Electronics*, pp. 385-386, 2009.
- Mamou, J., Coron, A., Hata, M., Machi, J., Yanagihara, E., Laugier, P., **Feleppa**, E.J., "Three-dimensional high-frequency characterization of cancerous lymph nodes," *Ultrasound Med. Biol.* 36(3):361-375, 2010. PMID: PMC2826510

Feleppa, E.J., Rondeau, M.J., Lee, P. and Porter, C.R., "Prostate-cancer imaging using machine-learning classifiers: potential value for guiding biopsies, targeting therapy, and monitoring treatment," in *Proceedings of the 2009 IEEE Ultrasonics Symposium*, pp. 527-529, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2009.

Mamou, J., Coron, A., Hata, M., Machi, J., Yanagihara, E., Laugier, P., and **Feleppa**, E.J., "Three-dimensional high-frequency characterization of excised human lymph nodes," in *Proc. 2009 IEEE-Int. Ultrasonics Symp.*, pp. 45-48, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2009.

Silverman, R.H., Patel, M.S., Gal, O., Sarup, A., Deobhakta, A., Dababneh, H., Reinstein, D.Z., **Feleppa**, E.J., and Coleman, D.J., "Effect of corneal hydration on ultrasound velocity and backscatter," *Ultrasound Med Biol.* 2009;35(5):839-846. PMID: PMC2705943

Mamou, J., Coron, A., Hata, M., Machi, J., Yanagihara, E., Laugier, P., and **Feleppa**, E.J., "High-frequency quantitative ultrasound imaging of cancerous lymph nodes," *Japanese Journal of Applied Physics (JJAP)*, 48(7), Part 2, Special Issue, pp. 07GK08-1 to 07GK08-8, 2009.

Mamou, J. and **Feleppa**, E.J., "Ultrasonic detection and imaging of brachytherapy seeds based on singular spectrum analysis," *Acoustical Imaging*, Vol. 29, I. Akiyama (Ed.), Springer, Dordrecht, pp. 127-132, 2009.

Feleppa, E.J., "Ultrasonic tissue-type imaging of the prostate: Implications for biopsy and treatment guidance," *Cancer Biomarkers* 4:201-212, 2008.

Mamou, J. and **Feleppa**, E.J., "Ultrasonic detection and imaging of two common types of prostate-brachytherapy seeds using singular spectrum analysis," in *Proceedings of the 2008 International Conference on Medical Image Computing and Computer Assisted Intervention*, New York (in press).

Feleppa, E., Dasgupta, S., Ramachandran, S., Ketterling, J., Kalisz, A., Porter, C., Lacrampe, M., Isacson, C., Haker, S. and Tempany, C., "Combining ultrasonic and magnetic-resonance spectral methods for imaging prostate cancer," *Acoustical Imaging*, Vol. 29, I. Akiyama (Ed.), Springer, Dordrecht, pp. 139-145, 2008.

Coron, A., Mamou, J., Hata, M., Machi, J., Yanagihara, E., Laugier, P., and **Feleppa**, E.J., "Three-dimensional segmentation of high-frequency ultrasound data echo signals from dissected lymph nodes," in *Proc. 2008 IEEE-Int. Ultrasonics Symp.*, pp. 1370-1373, K.R. Waters (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2008.

Feleppa, E.J., "Cancer of the prostate (PCa)," *Cancer Biomarkers*, 4(4-5):193-4, 2008. PMID: 18957708

Mamou, J. and **Feleppa**, E.J., "Ultrasonic detection and imaging of two common types of prostate-brachytherapy seeds using singular spectrum analysis," in *Proceedings of the 2008 International Conference on Medical Image Computing and Computer Assisted Intervention*, New York, 2008.

Mamou, J., Coron, A., Hata, M., Machi, J., Yanagihara, E., Laugier, P., and **Feleppa**, E.J., "Three-dimensional scatterer-size estimation in dissected human lymph nodes using high-frequency ultrasound", *Proceedings of the 29th Symposium on Ultrasonic Electronics*, Vol. 29, pp. 457-458, Sendai, Japan, 2008.

Mamou, J., Ramachandran, S. and **Feleppa**, E.J., "Angle-dependent ultrasonic detection and imaging of two types of brachytherapy seeds using singular spectrum analysis," *J Acoust Soc Am.* EL., 124(6):347-352, 2008.

Mamou, J., Ramachandran, S. and **Feleppa**, E.J., "Angle-dependent ultrasonic detection and imaging of brachytherapy seeds using singular spectrum analysis," *J. Acoust. Soc. Am.*, 123(4):2148-2159, 2008.

Feleppa, E. J., "Tissue characterization by ultrasonic spectrum analysis," in *Proceedings of the 19th International Congress on Acoustics*, *Revista de Acustica*, 38(3-4), 2007.

Dasgupta, S., **Feleppa**, E.J., Ramachandran, S., Ketterling, J.A., Kalisz, A., Haker, S., Tempany, C., Porter, C., Lacrampe, M., Isacson, C., and Sparks, D., "Spatial co-registration of magnetic resonance and ultrasound images of the prostate as a basis for multi-modality tissue-type imaging," in *Proc. 2007 IEEE-Int. Ultrasonics Symp.*, pp. 641-643, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2007.

Dasgupta, S. and **Feleppa**, E.J., "Empirical validation of the theoretical frameworks underlying ultrasound scattering in tissue," in *Proc. 2007 IEEE-Int. Ultrasonics Symp.*, pp. 236-239, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2007.

Ramachandran, S., Mamou, J. and **Feleppa**, E.J., "Singular spectrum analysis for detecting brachytherapy seeds with angle variation," in *Proc. 2007 IEEE-Int. Ultrasonics Symp.*, pp. 460-463, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2007.

Muratore, R., Abe, Y., Homma, S., Bernardi, R. B., Kalisz, A., **Feleppa**, E. J., "Cardiac ventricular HIFU: convergence of experiment and theory in the canine model," in *Proc. of the 6th International Symposium on Therapeutic Ultrasound*; pp. 362-368, C.-C. Coussios and G. ter Haar (Eds.), Oxford, UK, 2007.

Mamou, J. and **Feleppa**, E. J., "Singular spectrum analysis applied to ultrasonic detection and imaging brachytherapy seeds," *J. Acoust. Soc. Am.*, 121(3):1790-1801, 2007.

Feleppa, E.F., Porter, C.R., Ketterling, J., Dasgupta, S., Ramachandran, S., and Sparks, D., "Recent advances in ultrasonic tissue-type imaging of the prostate: improving detection and evaluation," *Acoustical Imaging Vol. 28*, M.P. Andre (Ed.), Springer, Dordrecht, 2007, pp. 331-339.

Feleppa, E.J., Dasgupta, S., Ramachandran, S., Ketterling, J.A., Porter, C.R., LaCrampe, M. and Dail, D., "Tissue-type imaging (TTI) of prostate cancer based on ultrasonic and magnetic-resonance methods: latest developments," in *Proc. 2006 IEEE-Int. Ultrasonics Symp.*, pp. 630-632, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Mamou, J. and **Feleppa**, E.J., "Ultrasonic imaging of brachytherapy seeds based on singular spectrum analysis," in *Proc. 2006 IEEE-Int. Ultrasonics Symp.*, pp. 1107-1110, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Dasgupta, S., **Feleppa**, E.J., Mamou, J., Rondeau, M.J., "Validating the theory relating ultrasonic spectral-parameter values to scatterer properties," in *Proceedings of the 2006 IEEE International Ultrasonics Symposium*, pp. 633-636, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Silverman, R.H., Cannata, J., Shung, K.K., Gal, O., Patel, M., Lloyd, H.O., **Feleppa**, E.J., Coleman, D.J., "75 MHz ultrasound biomicroscopy of the anterior segment of the eye," *Ultrasonic Imaging*, 28(3):179-188, 2006. PMID: PMC1764628

Silverman, R.H., Muratore, R., Ketterling, J.A., Mamou, J., Coleman, D.J., **Feleppa**, E.J., "Improved visualization of high-intensity focused ultrasound lesions," *Ultrasound Med. Biol.*, 32(11):1743-1751, 2006. PMID: PMC1644529

Lizzi, F.L., Alam, S.K., Mikaelian, S., Lee, P. and **Feleppa**, E.J., "On the statistics of ultrasonic spectral parameters," *Ultrasound Med. Biol.*, 32(11):1671-1685, 2006. PMID: 17112954

Fujikura, K., Otsuka, R., Kalisz, A., Ketterling, J.A., Jin, Z., Sciacca, R.R., Marboe, C.C., Wang, J. Muratore, R., **Feleppa**, E.J., and Homma, S., "Effects of ultrasonic exposure parameters on myocardial lesions induced by high-intensity, focused ultrasound," *J. Ultrasound Med.*, 25(11):1375-1386, 2006. PMID: 17060423

Feleppa, E.J., Porter, C.R., Dasgupta, S., Kalisz, A., Ketterling, J., Ramachandran, S., Dail, D., LaCrampe, M., Sparks, D., Arias-Mendoza, F., "New developments in tissue-type imaging (TTI) of prostate cancer: combined ultrasonic and magnetic-resonance methods," in *Proceedings of the 2005 IEEE International Ultrasonics Symposium*, pp. 831-834, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Mamou, J., Ramachandran, S. and **Feleppa**, E.J., "Angle-dependent ultrasonic detection and imaging of brachytherapy seeds using singular spectrum analysis," *J. Acoust. Soc. Am.*, 123(4):2148-2159, 2008.

Feleppa, E. J., "Tissue characterization by ultrasonic spectrum analysis," in *Proceedings of the 19th International Congress on Acoustics*, *Revista de Acustica*, 38(3-4), 2007.

Dasgupta, S., **Feleppa**, E.J., Ramachandran, S., Ketterling, J.A., Kalisz, A., Haker, S., Tempany, C., Porter, C., Lacrampe, M., Isacson, C., and Sparks, D., "Spatial co-registration of magnetic resonance and ultrasound images of the prostate as a basis for multi-modality tissue-type imaging," in *Proc. 2007 IEEE-Int. Ultrasonics Symp.*, pp. 641-643, M.P. Yuhás (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2007.

Dasgupta, S., **Feleppa**, E.J., Mamou, J. and Rondeau M.J., "Validating the theory relating ultrasonic spectral-parameter values to scatterer properties," in *Proc. of the 2006 IEEE International Ultrasonics Symposium*, pp. 633-636, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Mamou, J. and **Feleppa**, E.J., "Ultrasonic imaging of brachytherapy seeds based on singular spectrum analysis," in *Proceedings of the 2006 IEEE International Ultrasonics Symposium*, pp. 1107-1110, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Feleppa, E.J., Dasgupta, S., Ramachandran, S., Ketterling, J.A., Porter, C.R., LaCrampe, M. and Dail, D., "Tissue-type imaging (TTI) of prostate cancer based on ultrasonic and magnetic-resonance methods: latest developments," in *Proceedings of the 2005 IEEE International Ultrasonics Symposium*, pp. 630-632, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Silverman RH, Cannata, J, Shung KK, Gal O, Patel M, Lloyd HO, **Feleppa** EJ, Coleman DJ, "75 MHz ultrasound biomicroscopy of the anterior segment of the eye," *Ultrasonic Imaging*, 28:179-188, 2006.

Lizzi, F.L., Alam, S.K., Mikaelian, S., Lee, P. and **Feleppa**, E.J., "On the statistics of ultrasonic spectral parameters," *Ultrasound Med. Biol.*, 32(11):1671-1685, 2006.

Silverman, R.H., Muratore, R., Ketterling, J.A., Mamou, J., Coleman, D.J., and **Feleppa**, E.J., "Improved visualization of high-intensity focused ultrasound lesions," *Ultrasound Med. Biol.*, 32(11):1743-1751, 2006.

Fujikura, K., Otsuka, R., Kalisz, A., Ketterling, J.A., Jin, Z., Sciacca, R.R., Marboe, C.C., Wang, J., Muratore, R., **Feleppa**, E.J. and Homma S., "Effects of ultrasonic exposure parameters on myocardial lesions induced by high-intensity, focused ultrasound," *J. Ultrasound Med.*, 102(5):1375-1386, 2006.

Feleppa, E.J., Porter, C.R., Dasgupta, S., Kalisz, A., Ketterling, J., Ramachandran, S., Dail, D., LaCrampe, M., Sparks, D., and Arias-Mendoza, F., "New developments in tissue-type imaging (TTI) of prostate cancer: combined ultrasonic and magnetic-resonance methods," in *Proceedings of the 2005 IEEE International Ultrasonics Symposium*, pp. 831-834, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2006.

Wear, K.A., Stiles, T.A., Frank, G.R., Madsen, E.L., Cheng, F., **Feleppa**, E.J., Hall, C.S., Kim, B.S., Lee, P., O'Brien, Jr., W.D., Oelze, M.L., Raju, B.I., Shung, K.K., Wilson, T.A., Yuan, J.R., "Interlaboratory comparison of ultrasonic backscatter coefficient measurements from 2 to 9 MHz," *J. Ultrasound Med.*, 24:1235-1250, 2005.

Feleppa, E.J., Ketterling, J., Lee, P., Urban, S., Kalisz, A., Porter, C.R., Kutcher, G., and Arias-Mendoza, F., "New Developments in Tissue-Type Imaging (TTI) for Guiding Prostate Biopsies and for Planning and Monitoring Treatment of Prostate Cancer," in *Proceedings of the 2004 Ultrasonics Symposium*, pp. 834-837, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2005.

Alam, S.K., **Feleppa**, E.J., Kalisz, A., Ramachandran, S., Ennis, R.D., Lizzi, F.L., Wu, C.-S., and Ketterling J., "Prostate elastography - Preliminary in vivo results," in *Medical Imaging 2005: Ultrasonic Imaging and Signal Processing*, Society of Photo-Optical Instrumentation Engineers, W.F. Walker and S.Y. Emelianov (Eds.), vol. 5750, pp. 339-345, Bellingham, WA, 2005.

Feleppa, E.J., Porter, C.R., Ketterling, J.A., Lee, P., Dasgupta, S., Urban, S. and Kalisz, A., "Recent Developments in Tissue-type Imaging (TTI) for Planning and Monitoring Treatment of Prostate Cancer," *Ultrason. Imaging*, 26:71-84, 2004.

Alam, S.K., Lizzi, F.L., Varghese, T., **Feleppa**, E.F., and Ramachandran, S., "Adaptive spectral strain estimators for elastography," *Ultrason. Imaging*, 131-149, 2004.

Wear, K.A., Stiles, T.A., Frank, G.R., Madsen, E.L., Cheng, F., **Feleppa**, E.J., Hall, C.S., Kim, B.S., Lee, P., O'Brien, Jr., W.D., Oelze, M.L., Raju, B.I., Shung, K.K., Wilson, T.A., Yuan, J.R., "Interlaboratory comparison of ultrasonic backscatter coefficient measurements from 2 to 9 MHz," *J. Ultrasound Med.*, 24:1235-1250, 2005.

Feleppa, E.J., Ketterling, J., Lee, P., Urban, S., Kalisz, A., Porter, C.R., Kutcher, G., and Arias-Mendoza, F., "New Developments in Tissue-Type Imaging (TTI) for Guiding Prostate Biopsies and for Planning and Monitoring Treatment of Prostate Cancer," in *Proceedings of the 2004 Ultrasonics Symposium*, pp. 834-837, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2005.

Alam, S.K., **Feleppa**, E.J., Kalisz, A., Ramachandran, S., Ennis, R.D., Lizzi, F.L., Wu, C.-S., and Ketterling J., "Prostate elastography - Preliminary in vivo results," in *Medical Imaging 2005: Ultrasonic Imaging and Signal*

Processing, Society of Photo-Optical Instrumentation Engineers, W.F. Walker and S.Y. Emelianov (Eds.), vol. 5750, pp. 339-345, Bellingham, WA, 2005.

Feleppa, E.J., Porter, C.R., Ketterling, J.A., Lee, P., Dasgupta, S., Urban, S. and Kalisz, A., "Recent Developments in Tissue-type Imaging (TTI) for Planning and Monitoring Treatment of Prostate Cancer," *Ultrason. Imaging*, 26:71-84, 2004.

Alam, S.K., Lizzi, F.L., Varghese, T., **Feleppa**, E.F., and Ramachandran, S., "Adaptive spectral strain estimators for elastography," *Ultrason. Imaging*, 131-149, 2004.

Wear, K.A., Stiles, T.A., Frank, G.R., Madsen, E.L., Cheng, F., Feleppa, E.J., Hall, C.S., Kim, B.S., Lee, P., O'Brien, Jr., W.D., Oelze, M.L., Raju, B.I., Shung, K.K., Wilson, T.A., Yuan, J.R., "Interlaboratory comparison of ultrasonic backscatter coefficient measurements from 2 to 9 MHz," *J. Ultrasound Med.*, 24:1235-1250, 2005.

Feleppa, E.J., Ketterling, J., Lee, P., Urban, S., Kalisz, A., Porter, C.R., Kutcher, G., and Arias-Mendoza, F., "New Developments in Tissue-Type Imaging (TTI) for Guiding Prostate Biopsies and for Planning and Monitoring Treatment of Prostate Cancer," in *Proceedings of the 2004 Ultrasonics Symposium*, pp. 834-837, M.P. Yuhas (Ed.), Institute of Electrical and Electronics Engineers, Piscataway, 2005.

Feleppa, E.J., Porter, C.R., Ketterling, J.A., Lee, P., Dasgupta, S., Urban, S. and Kalisz, A., "Recent Developments in Tissue-type Imaging (TTI) for Planning and Monitoring Treatment of Prostate Cancer," *Ultrason. Imaging*, 26:71-84, 2004.

Feleppa, E.J., Lee, P., Urban, S., Ketterling, J.A., Arias-Mendoza, F., Kutcher, G., "Progress in characterizing and imaging prostate tissues for guiding biopsies and planning and targeting treatment of prostate cancer," in *Proceedings of the 2003 Ultrasonics Symposium*, pp. 1019-1021, S. Schneider and D. Yuhas (Eds.), Institute of Electrical and Electronics Engineers, Piscataway, 2004.

Feleppa, E.J., Ketterling, J.A., Porter, C.R., Gillespie, J., Wu, C.-S., Urban, S., Kalisz, A., Ennis, R.D. and Schiff, P.B., "Ultrasonic tissue-type imaging (TTI) for planning treatment of prostate cancer," in *Medical Imaging 2004: Ultrasonic Imaging and Signal Processing*, Society of Photo-Optical Instrumentation Engineers, W.F. Walker and S.Y. Emelianov (Eds.), vol. 5373, pp. 223-230, Bellingham, WA, 2004.

Feleppa, E.J., Alam, S.K., and Deng, C.X., "Emerging ultrasound technologies for imaging early markers of disease," *Disease Markers*, 18:249-268, 2004.

Lizzi, F.L., Feleppa, E.J., Alam, S.K., and Deng, C.X., "Ultrasonic spectrum analysis for tissue evaluation," *Special Issue on Ultrasonic Image Processing & Analysis in Pattern Recognition Letters*, 24(4-5):637-658, 2003.

Tateishi, T., Machi, J., Feleppa, E.J., Oishi, A.J., Furumoto, N.L., Oishi, R.H., McCarthy, L.J., Yanagihara, E. and Shirouzu, K., "In vitro investigation of detectability of colorectal lymph nodes and diagnosis of lymph node metastasis in colorectal cancer using B-mode sonography." *J. Clin. Ultrasound*, 32(1):1-7, 2004.

Feleppa, E.J., Urban, S., Kalisz, A., Porter, C.R., Gillespie, J., Ennis, R.D., Wu, C.S. and Schiff, P.B., "Advances in tissue-type imaging (TTI) for detecting and evaluating prostate cancer," in *Proceedings of the 2002 Ultrasonics Symposium*, pp. 1373-1377, S. Schneider and D. Yuhas (Eds.), Institute of Electrical and Electronics Engineers, Piscataway, 2003.

Balaji, K.C., Fair, W., Feleppa, E.J., Porter, C., Tsai, H., Liu, T., Kalisz, A., Urban, S., Gillespie, J.W., "Role of advanced 2-D and 3-D ultrasound imaging in detection of prostate cancer," *Urology*, 168(6):2422-2425, 2002.

Feleppa, E.J., Ennis, R.D., Schiff, P.B., Wu, C.S., Kalisz, A., Ketterling, J.A., Urban, S., Liu, T., Fair, W.R., Porter, C.R. and Gillespie, J.R., "Ultrasonic spectrum-analysis and neural-network classification as a basis for ultrasonic imaging to target brachytherapy of prostate cancer," *Journal of Brachytherapy Intl.*, 1(1):1-6, 2002.

Feleppa, E.J., Ramachandran, S., Alam, S.K., Kalisz, A., Ketterling, J.A., Ennis, R.D. and Wu, C.S., "Novel methods of analyzing radio-frequency echo signals for the purpose of imaging brachytherapy seeds used to treat prostate cancer," in *Medical Imaging 2002: Ultrasonic Imaging and Signal Processing*, Society of Photo-Optical Instrumentation Engineers, M. Insana, W. Walker (Eds.), vol. 4687, pp. 127-138, Bellingham, WA, 2002.

Feleppa, E.J., Alam, S.K., and Deng, C.X., "Emerging Ultrasound Technologies for Early Markers of Disease," in *Special Issue of Disease Markers: Functional Imaging of Early Markers of Disease*, N. Sampson (Ed.), IOS Press, Amsterdam 18(5,6):249-268, 2002.

Alam, S.K., Lizzi, F.L., Feleppa, E.J., Liu, T. and Kalisz, A., "Multi-feature analysis for automated breast lesion classification from ultrasonic data," *Proceedings of the IEEE 28th Northeast Bioengineering Conference*, K. Moxon, D. El-Sherif, S. Kanakasabai, Editors, pp. 287-288, 2002.

Feleppa, E.J., Ketterling, J.A., Kalisz, A. Urban, S., Schiff, P.B., Ennis, R.D., Wu, C.S., Porter, C.R., Fair, W.R. and Gillespie, J.W., "Application of spectrum analysis and neural-network classification to imaging for targeting and monitoring treatment of prostate cancer," in *Proceedings of the 2001 Ultrasonics Symposium*, pp. 1269-1272, S. Schneider, M. Levy and B. McAvoy (Eds.), IEEE, Piscataway, 2002.