

REFERENCES

- [1] A. Goldstein and R. L. Powis, *Medical Ultrasonic Diagnostics*, New York: Academic Press, 1999.
- [2] L. Peters, Jr., J. J. Daniels, and J. D. Young, "Ground penetrating radar as a subsurface environmental sensing tool," *Proc. IEEE* vol. 82, pp. 1802-1822, 1994.
- [3] D. M. McCann, E. M. Andrew, and C. McCann, "Seismic sources for shallow reflection surveying," *Geophys. Prospect.* vol. 33, pp. 943-955, 1985.
- [4] D. M. McCann, P. D. Jackson, and P. J. Fenning, "Comparison of seismic and ground probing radar in geological surveying," *IEE Proc. F, Radar Signal Process.* vol. 135, pp. 380-390, 1988.
- [5] E. Smith, P. S. Wilson, F. W. Bacon, J. F. Manning, J. A. Behrens, and T. G. Muir, "Measurements and localization of interface wave reflections from a buried target," *Journal of Acoustical Society of America*, vol. 103, pp. 2333-2343, 1998.
- [6] M. A. Biot, "Theory of propagation of elastic waves in a fluid saturated porous solid. I. Low-frequency range," *Journal of Acoustical Society of America*, vol 28, pp. 168-178, 1956.
- [7] M. A. Biot, "Theory of propagation of elastic waves in a fluid saturated porous solid. II. High-frequency range," *Journal of Acoustical Society of America*, vol. 28, pp. 179-191, 1956.
- [8] M. A. Biot, "Mechanics deformation and acoustic propagation of elastic waves in a porous media," *J. Appl. Phys.*, vol. 33, pp. 1482-1488, 1962.
- [9] R. Burridge and J. B. Keller, "Poroelasticity equations derived from microstructure," *Journal of Acoustical Society of America*, vol. 70, pp. 1140-1146, 1981.
- [10] J. Plona, "Observation of the second bulk compressional wave in a porous medium at ultrasonic frequencies," *Appl. Phys. Lett.*, vol. 36, pp. 259-261, 1980.

- [11] M. L. Oelze, W. D. O'Brien, Jr., and R. G. Darmody "Measurement of attenuation and speed of sound in soils," *Soil Science Society of America Journal*, submitted, 2001.
- [12] L. E. Kinsler, A. R. Frey, A. B. Coppens, and J. V. Sanders *Fundamentals of Acoustics*, 4th ed., New York: John Wiley & Sons, 2000.
- [13] D. E. Gray, *American Institute of Physics Handbook*, 3rd ed., McGraw-Hill Book Company, 1969.
- [14] C. H. Frazier, N. Cadalli, D. C. Munson, Jr., and W. D. O'Brien, Jr., "Acoustic imaging of objects buried in soil," *Journal of American Acoustical Society*, vol. 108, pp. 147-156, 2000.
- [15] P. S. Lafolette, Jr. and M. C. Ziskin, "Geometric and intensity distortion in echography," *Ultrasound Med. Biol.*, vol. 12, pp. 953-963, 1986.
- [16] H. Kanai, "A new method for measuring small local vibrations in the heart using ultrasound," *IEEE Trans. Biomed. Eng.*, vol 40, pp. 1233-1242, 1993.
- [17] N. Cadalli "Signal processing issues in reflection tomography," Ph.D. dissertation, University of Illinois, Urbana-Champaign, 2001.
- [18] Y. Q. Zeng and Q. H. Liu, "Acoustic detection of buried objects in 3-D fluid saturated porous media: Numerical modeling," *IEEE Transactions on Geoscience and Remote Sensing*, vol. 39, pp. 1165-1173, 2001.