References

Aki, K., and P. G. Richards, 2002, Quantitative seismology: University Science Books.

Al-Chalabi, M., 1974, An analysis of stacking, rms, average, and interval velocities over a horizontally layered ground: Geophysical Prospecting, **22**, 458–475.

Al-Dajani, A., and I. Tsvankin, 1998, Nonhyperbolic reflection moveout for horizontal transverse isotropy: Geophysics, **63**, 1738–1753.

Al-Dajani, A., I. Tsvankin, and M. N. Toksoz, 1998, Nonhyperbolic reflection moveout for azimuthally anisotropic media: 68th Annual International Meeting, SEG, Expanded Abstracts, 1479–1482.

Alfaraj, M. N., 1993, Transformation to zero offset for mode-converted waves: Ph.D. thesis, Colorado School of Mines.

Alford, R. M., 1986, Shear data in the presence of azimuthal anisotropy: 56th Annual International Meeting, SEG, Expanded Abstracts, 476–479.

Alkhalifah, T., 1995, Gaussian beam depth migration for anisotropic media: Geophysics, **60**, 1474–1484.

——, 1996a, Seismic processing in transversely isotropic media: Ph.D. thesis, Colorado School of Mines.

——, 1996b, Transformation to zero offset in transversely isotropic media: Geophysics, **61**, 947–963.

——, 1997a, Seismic data processing in vertically inhomogeneous TI media: Geophysics, **62**, 662–675.

——, 1997b, Velocity analysis using nonhyperbolic moveout in transversely isotropic media: Geophysics, **62**, 1839–1854.

Alkhalifah, T., and K. Larner, 1994, Migration error in transversely isotropic media: Geophysics, **59**, 1405–1418.

Alkhalifah, T., and I. Tsvankin, 1995, Velocity analysis for transversely isotropic media: Geophysics, **60**, 1550–1566.

Alkhalifah, T., I. Tsvankin, K. Larner, and J. Toldi, 1996, Velocity analysis and imaging in transversely isotropic media: Methodology and a case study: The Leading Edge, **15**, 371–378.

Anderson, J. E., T. Alkhalifah, and I. Tsvankin, 1996, Fowler DMO and time migration for transversely isotropic media: Geophysics, **61**, 835–844.

Anderson, J. E., and I. Tsvankin, 1997, Dip-moveout processing by Fourier transform in anisotropic media: Geophysics, **62**, 1260–1269.

Artley, C. T., and D. Hale, 1994, Dip moveout processing for depth-variable velocity: Geophysics, **59**, 610–622.

Auld, B. A., 1973, Acoustic fields and waves in solids: John Wiley and Sons.

Bakulin, A., V. Grechka, and I. Tsvankin, 2000a, Estimation of fracture parameters from reflection seismic data—Part I: HTI model due to a single fracture set: Geophysics, **65**, 1788–1802.

——, 2000b, Estimation of fracture parameters from reflection seismic data—Part II: Fractured models with orthorhombic symmetry: Geophysics, **65**, 1803–1817.

——, 2000c, Estimation of fracture parameters from reflection seismic data—Part III: Fractured models with monoclinic symmetry: Geophysics, **65**, 1818–1830.

Ball, G., 1995, Estimation of anisotropy and anisotropic 3-D prestack migration, offshore Zaire: Geophysics, **60**, 1495-1513.

Banik, N. C., 1984, Velocity anisotropy of shales and depth estimation in the North Sea basin: Geophysics, **49**, 1411–1419.

——, 1987, An effective parameter in transversely isotropic media: Geophysics, **52**, 1654–1664.

Bartel, D. C., W. L. Abriel, M. A. Meadows, and N. R. Hill, 1998, Determination of transversely isotropic velocity parameters at the Pluto Discovery, Gulf of Mexico: 68th Annual International Meeting, SEG, Expanded Abstracts, 1269–1272.

Bednar, J. B., 1997, Least squares dip and coherency attributes: Stanford Exploration Project Report #95, 219–225.

Ben-Menahem, A., 1990, SH waves from point sources in anisotropic inhomogeneous media: Geophysics, **55**, 488–491.

Ben-Menahem, A., R. L. Gibson, and A. G. Sena, 1991, Green's tensor and radiation patterns of point sources in general anisotropic inhomogeneous elastic media: Geophysical Journal International, **107**, 297–308.

Berryman, J. G., 1979, Long-wave elastic anisotropy in transversely isotropic media: Geophysics, **44**, 896–917.

Berryman, J. G., V. Grechka, and P. A. Berge, 1999, Analysis of Thomsen parameters for finely layered VTI media: Geophysical Prospecting, **47**, 959–978.

Black, J. L., K. L. Schleicher, and L. Zhang, 1993, True-amplitude imaging and dip moveout: Geophysics, **58**, 47–66.

Bleistein, N., 1984, Mathematical methods for wave phenomena: Academic Press.

——, 1990, Born DMO revisited: 60th Annual International Meeting, SEG, Expanded Abstracts, 1366–1369.

Booth, D. C., and S. Crampin, 1983, The anisotropic reflectivity technique: Theory: Geophysical Journal of the Royal Astronomical Society, **72**, 755–766.

Byun, B. S., 1982, Seismic parameters for media with elliptical velocity dependencies: Geophysics, **47**, 1621–1626.

Byun, B. S., and D. Corrigan, 1990, Seismic traveltime inversion for transverse isotropy: Geophysics, **55**, 192–200.

Byun, B. S., D. Corrigan, and J. E. Gaiser, 1989, Anisotropic velocity analysis for lithology discrimination: Geophysics, **54**, 1564–1574.

Castle, R. J., 1994, A theory of normal moveout: Geophysics, **59**, 983–999.

Červený, V., 1972, Seismic rays and ray intensities in inhomogeneous anisotropic media: Journal of Geophysics, **28**, 1–13.

Červený, V., and I. Pšenčík, 1984, Gaussian beams in elastic 2-D laterally varying layered structures: Geophysical Journal of the Royal Astronomical Society, **78**, 65–91.

Chapman, C. H., and R. G. Pratt, 1992, Traveltime tomography in anisotropic media—I. Theory: Geophysical Journal International, **109**, 1–19.

Cheadle, S. P., R. J. Brown, and D. C. Lawton, 1991, Orthorhombic anisotropy: A physical modeling study: Geophysics, **56**, 1603–1613.

Chesnokov, E. M., and S. S. Abaseev, 1986, Theoretical seismograms of surface waves in anisotropic media: Reports of the Soviet Academy of Sciences (USSR), **286**, 592–597 (in Russian).

Cohen, J. K., 1997, Analytic study of the effective parameters for determination of the NMO velocity function in transversely isotropic media: Geophysics, **62**, 1855–1866.

——, 1998, A convenient expression for the NMO velocity function in terms of ray parameter: Geophysics, **63**, 275–278.

Contreras, P., V. Grechka, and I. Tsvankin, 1999, Moveout inversion of P-wave data for horizontal transverse isotropy: Geophysics, **64**, 1219–1229.

Crampin, S., 1985, Evidence for aligned cracks in the earth's crust: First Break, **3**, 12–15.

——, 1991, Effects of singularities on shear-wave propagation in sedimentary basins: Geophysical Journal International, **107**, 531–543.

Crampin, S., and M. Yedlin, 1981, Shear-wave singularities of wave propagation in anisotropic media: Journal of Geophysics, **49**, 43–46.

de Bazelaire, E., and J. R. Viallix, 1994, Normal moveout in focus: Geophysical Prospecting, **42**, 477–499.

Dellinger, J., and F. Muir, 1988, Imaging reflections in elliptically anisotropic media: Geophysics, **53**, 1616–1618.

——, 1993, Dix revisited: A formalism for rays in layered media: Canadian Journal of Exploration Geophysics, **29**, 93–97.

Desegaulx, P., J. Piazz, J. Esteve, and J. Jeannot, 1994, Uncertainties in depth imaging: A multitechnique approach on real data: 64th Annual International Meeting, SEG, Expanded Abstracts, 695–698.

Dix, C. H., 1955, Seismic velocities from surface measurements: Geophysics, **20**, 68–86.

Duren, R. E., 1992, Range-equation weights for AVO: Geophysics, **57**, 1203–1208.

Fedorov, F. I., 1968, Theory of elastic waves in crystals: Plenum Press.

Fowler, P., 1984, Velocity independent imaging of seismic reflectors: 54th Annual International Meeting, SEG, Expanded Abstracts, 383–385.

——, 1988, Seismic velocity estimation using prestack time migration: Ph.D. thesis, Stanford University.

Fryer, G. J., and L. N. Frazer, 1987, Seismic waves in stratified anisotropic media. Elastodynamic eigensolutions for some anisotropic systems: Geophysical Journal of the Royal Astronomical Society, **91**, 73–101.

Fuchs, K., 1971, The method of stationary phase applied to the reflection of spherical waves from the transition zones with arbitrary depth dependent elastic moduli and density: Journal of Geophysics, **37**, 89–117.

Gaiser, J. E., 1996, Multicomponent V_P/V_S correlation analysis: Geophysics, **61**, 1137–1149.

Gaiser, J. E., 1999, Applications for vector coordinate systems of 3-D converted-wave data: The Leading Edge, **18**, 1290–1300.

Gajewski, D., 1993, Radiation from point sources in general anisotropic media: Geophysical Journal International, **113**, 299–317.

Gajewski, D., and I. Pšenčík, 1987, Computation of high frequency seismic wavefields in 3-D laterally inhomogeneous anisotropic media: Geophysical Journal of the Royal Astronomical Society, **91**, 383–412.

Gazdag, J., 1978, Wave equation migration with the phase-shift method: Geophysics, **43**, 1342–1351.

Gidlow, P. W., and J. L. Fatti, 1990, Preserving far offset seismic data using non-hyperbolic moveout correction: 60th Annual International Meeting, SEG, Expanded Abstracts, 1726–1729.

Graebner, M., 1992, Plane-wave reflection and transmission coefficients for a transversely isotropic solid: Geophysics, **57**, 1512–1519.

Granli, J. R., B. Arntsen, A. Sollid, and E. Hilde, 1999, Imaging through gas-filled sediments using marine shear-wave data: Geophysics, **64**, 668–677.

Grechka, V., 2009, Applications of seismic anisotropy in the oil and gas industry: EAGE.

Grechka, V., G. A. McMechan, and V. A. Volovodenko, 1996, Solving 1-D inverse problems by Chebyshev polynomial expansion: Geophysics, **61**, 1758–1768.

Grechka, V., and I. Obolentseva, 1993, Geometrical structure of shear wave surfaces near singularity directions in anisotropic media: Geophysical Journal International, **115**, 609–616.

Grechka, V., A. Pech, and I. Tsvankin, 2002, P-wave stacking-velocity tomography for VTI media: Geophysical Prospecting, **50**, 151–168.

Grechka, V., S. Theophanis, and I. Tsvankin, 1999a, Joint inversion of P- and PS-waves in orthorhombic media: Theory and a physical-modeling study: Geophysics, **64**, 146–161.

Grechka, V., and I. Tsvankin, 1998a, Feasibility of nonhyperbolic moveout inversion in transversely isotropic media: Geophysics, **63**, 957–969.

——, 1998b, 3-D description of normal moveout in anisotropic inhomogeneous media: Geophysics, **63**, 1079–1092.

——, 1999a, 3-D moveout velocity analysis and parameter estimation for orthorhombic media: Geophysics, **64**, 820–837.

——, 1999b, 3-D moveout inversion in azimuthally anisotropic media with lateral velocity variation: Theory and a case study: Geophysics, **64**, 1202–1218.

——, 2000, Inversion of azimuthally dependent NMO velocity in transversely isotropic media with a tilted axis of symmetry: Geophysics, **65**, 232–246.

Grechka, V., I. Tsvankin, and J. K. Cohen, 1999b, Generalized Dix equation and analytic treatment of normal-moveout velocity for anisotropic media: Geophysical Prospecting, **47**, 117–148.

Guest, W. S., and J.-M. Kendall, 1993, Modelling seismic waveforms in anisotropic inhomogeneous media using ray and Maslov asymptotic theory: Applications to exploration seismology: Canadian Journal of Exploration Geophysics, **29**, 78–92.

Hake, H., K. Helbig, and C. S. Mesdag, 1984, Three-term Taylor series for $t^2 - x^2$ curves over layered transversely isotropic ground: Geophysical Prospecting, **32**, 828–850.

Hale, D., 1984, Dip-moveout by Fourier transform: Geophysics, **49**, 741–757.

——, 1992, Migration by the Kirchhoff, slant stack, and Gaussian beam methods: Center for Wave Phenomena Research Report (CWP–121).

Hale, D., and C. Artley, 1993, Squeezing dip moveout for depth-variable velocity: Geophysics, **58**, 257–264.

Hale, D., N. R. Hill, and J. Stefani, 1992, Imaging salt with turning seismic waves: Geophysics, **57**, 1453–1462.

Han, B., T. Galikeev, V. Grechka, J. Le Rousseau, and I. Tsvankin, 2000, A synthetic example of anisotropic P-wave processing for a model from the Gulf of Mexico, *in* L. Ikelle and A. Gangi, eds., Anisotropy 2000: Fractures, converted waves and case studies: Proceedings of the 9th International Workshop on Seismic Anisotropy (9IWSA), SEG.

Hanyga, A., 1984, Point source in anisotropic elastic medium: Gerlands Beitrage zur Geophysik, **93**, 463–479.

——, 1986, Gaussian beams in anisotropic elastic media: Geophysical Journal of the Royal Astronomical Society, **85**, 473–563.

Helbig, K., 1966, A graphical method for the construction of rays and traveltimes in spherically layered media. Part 2: Anisotropic case, theoretical considerations: Bulletin of the Seismological Society of America, **56**, 527–559.

——, 1983, Elliptical anisotropy—its significance and meaning: Geophysics, **48**, 825–832.

——, 1993, Longitudinal directions in media with arbitrary anisotropy: Geophysics, **58**, 680–691.

——, 1994, Foundations of elastic anisotropy for exploration seismics: Pergamon Press.

Helbig, K., and M. Schoenberg, 1987, Anomalous polarization of elastic waves in transversely isotropic media: Journal of the Acoustical Society of America, **81**, 1235–1245.

Hill, N. R., 1990, Gaussian beam migration: Geophysics, **55**, 1416–1428.

Hubral, P., and T. Krey, 1980, Interval velocities from seismic reflection time measurements: SEG.

Isaac, J. H., and D. C. Lawton, 1999, Image mispositioning due to dipping TI media: A physical seismic modeling study: Geophysics, **64**, 1230–1238.

Jech, J., and I. Pšenčík, 1989, First-order perturbation method for anisotropic media: Geophysical Journal of the Royal Astronomical Society, **99**, 367–376.

Keith, C. M., and S. Crampin, 1977, Seismic body waves in anisotropic media: Reflection and refraction at a plane interface: Geophysical Journal of the Royal Astronomical Society, **49**, 181–208.

Kim, K. Y., K. H. Wrolstad, and F. Aminzadeh, 1993, Effects of transverse isotropy on P-wave AVO for gas sands: Geophysics, **58**, 883–888.

Kiselev, A. P., 1983, Extrinsic components of elastic waves: News of the Soviet Academy of Sciences, Physics of the Solid Earth, **9**, 51–56 (in Russian).

Kiselev, A. P., and I. Tsvankin, 1989, A method of comparison of exact and asymptotic wave field computations: Geophysical Journal International, **96**, 253–258.

Kitchenside, P., 1991, Phase shift-based migration for transverse isotropy: 61st Annual International Meeting, SEG, Expanded Abstracts, 993–996.

Korn, G., and T. Korn, 1968, Mathematical handbook for scientists and engineers: McGraw-Hill.

Kumazawa, M., and O. L. Anderson, 1969, Elastic moduli, pressure derivatives and temperature derivatives of single crystal olivine and single crystal forsterite: Journal of Geophysical Research, **74**, 5961–5972.

Larner, K., 1993, Dip-moveout error in transversely isotropic media with linear velocity variation in depth: Geophysics, **58**, 1442–1453.

Larner, K. and J. K. Cohen, 1993, Migration error in factorized transversely isotropic media with linear velocity variation in depth: Geophysics, **58**, 1454–1467.

Leary, P. C., S. Crampin, and T. V. McEvilly, 1990, Seismic fracture anisotropy in the earth's crust: An overview: Journal of Geophysical Research, **95** (B7), 11105–11114.

Le Stunff, Y., V. Grechka, and I. Tsvankin, 2001, Depth-domain velocity analysis in VTI media using surface P-wave data: Is it feasible?: Geophysics, **66**, 897–903.

Levin, F. K., 1971, Apparent velocity from dipping interface reflections: Geophysics, **36**, 510–516.

——, 1989, SV-wave velocities from P-P and P-SV data for transversely isotropic solids: Geophysics, **54**, 1336–1338.

——, 1990, Reflection from a dipping plane—Transversely isotropic solid: Geophysics, **55**, 851–855.

Liner, C. L., 1990, General theory and anatomy of dip moveout: Geophysics, **55**, 595–607.

Lynn, H., K. Simon, C. Bates, and R. Van Doc, 1996, Azimuthal anisotropy in P-wave 3-D (multiazimuth) data: The Leading Edge, **15**, 923–928.

Lynn, W., A. Gonzalez, and S. MacKay, 1991, Where are the fault-plane reflections?: 61st Annual International Meeting, SEG, Expanded Abstracts, 1151–1154.

MacBeth, C., 2002, Multi-component VSP analysis for applied seismic anisotropy: Pergamon Press.

Martinez, R. D., 1993, Wave propagation effects on amplitude variation with offset measurements: A modeling study: Geophysics, **58**, 534–543.

Martynov, V. N., and B. G. Mikhailenko, 1984, Numerical modelling of elastic waves in anisotropic inhomogeneous media for the halfspace and the sphere: Geohysical Journal of the Royal Astronomical Society, **76**, 53–63.

Meadows, M., and W. Abriel, 1994, 3-D poststack phase-shift migration in transversely isotropic media, 64th Annual International Meeting, SEG, Expanded Abstracts, 1205–1208.

Mensch, T., and P. Rasolofosaon, 1997, Elastic-wave velocities in anisotropic media of arbitrary symmetry—generalization of Thomsen's parameters ϵ, δ, and γ: Geophysical Journal International, **128**, 43–64.

Musgrave, M. J. P., 1970, Crystal acoustics: Holden Day.

Nolte, B., D. V. Sukup, P. M. Krail, B. O. Temple, and B. Cafarelli, 2000, Anisotropic 3D prestack depth imaging of the Donald field with converted waves: 70th Annual International Meeting, SEG, Expanded Abstracts, 1158–1161.

Notfors, C. D., and R. J. Godfrey, 1987, Dip moveout in the frequency-wavenumber domain: Geophysics, **52**, 1718–1721.

Payton, R. G., 1983, Elastic wave propagation in transversely isotropic media: Matinus Nijhoff Publishers.

Phadke, S., S. Kapotas, N. Dai, and E. R. Kanasewich, 1994, Migration of P-wave reflection data in transversely isotropic media: Geophysics, **59**, 591–596.

Pšenčík, I., and D. Gajewski, 1998, Polarization, phase velocity, and NMO velocity of *q*P-waves in arbitrary weakly anisotropic media: Geophysics, **63**, 1754–1766.

Radovich, B. J., and F. K. Levin, 1982, Instantaneous velocities and reflection times for transversely isotropic solids: Geophysics, **47**, 316–322.

Robertson, J. D., and D. Corrigan, 1983, Radiation patterns of a shear-wave vibrator in a near-surface shale: Geophysics, **48**, 19–26.

Rommel, B. E., 1994, Approximate polarization of plane waves in a medium having weak transverse isotropy: Geophysics, **59**, 1605–1612.

Rommel, B. E., and I. Tsvankin, 2000, Analytic description of P-wave ray direction and polarization in orthorhombic media, *in* L. Ikelle and A. Gangi, eds., Anisotropy 2000: Fractures, converted waves and case studies: Proceedings of the 9th International Workshop on Seismic Anisotropy (9IWSA), SEG.

Rüger, A., 1997, P-wave reflection coefficients for transversely isotropic models with vertical and horizontal axis of symmetry: Geophysics, **62**, 713–722.

——, 1998, Variation of P-wave reflectivity with offset and azimuth in anisotropic media: Geophysics, **63**, 935–947.

——, 2002, Reflection coefficients and azimuthal AVO analysis in anisotropic media: SEG.

Rüger, A., and I. Tsvankin, 1997, Using AVO for fracture detection: Analytic basis and practical solutions: The Leading Edge, **16**, 1429–1434.

Rutherford, S. R., and M. W. Williams, 1989, Amplitude-versus-offset variations in gas sands: Geophysics, **54**, 680–688.

Sams, M. S., M. H. Worthington, and M. S. Khanshir, 1993, A comparison of laboratory and field measurements of P-wave anisotropy: Geophysical Prospecting, **41**, 189–206.

Sarkar, D., B. Lamb, and J. Castagna, 1999, AVO and velocity analysis: 69th Annual International Meeting, SEG, Expanded Abstracts, 840–843.

Sayers, C. M., 1994a, The elastic anisotropy of shales: Journal of Geophysical Research, **99** (B1), 767–774.

——, 1994b, P-wave propagation in weakly anisotropic media: Geophysical Journal International, **116**, 799–805.

Sayers, C. M., and D. A. Ebrom, 1997, Seismic traveltime analysis for azimuthally anisotropic media: Theory and experiment: Geophysics, **36**, 1570–1582.

Sayers, C. M., and J. E. Rickett, 1997, Azimuthal variation in AVO response for fractured gas sands: Geophysical Prospecting, **45**, 165–182.

Schoenberg, M., and K. Helbig, 1997, Orthorhombic media: Modeling elastic wave behavior in a vertically fractured earth: Geophysics, **62**, 1954–1974.

Sena, A. G., 1991, Seismic traveltime equations for azimuthally anisotropic and isotropic media: Estimation of interval elastic properties: Geophysics, **56**, 2090–2101.

Sena, A. G., and M. N. Toksöz, 1993, Kirchhoff migration and velocity analysis for converted and nonconverted waves in anisotropic media: Geophysics, **58**, 265–276.

Seriff, A. J., and K. P. Sriram, 1991, P-SV reflection moveouts for transversely isotropic media with a vertical symmetry axis: Geophysics, **56**, 1271–1274.

Sexton, P., and P. Williamson, 1998, 3D anisotropic velocity estimation by model-based inversion of prestack traveltimes: 68th Annual International Meeting, SEG, Expanded Abstracts, 1855–1858.

Shah, P. M., 1973, Use of wavefront curvature to relate seismic data with subsurface parameters: Geophysics, **38**, 812–825.

Siliqi, R., and N. Bousqué, 2000, Anelliptic time processing based on a shifted hyperbola approach: 70th Annual International Meeting, SEG, Expanded Abstracts, 2245–2248.

Stolt, R. H., 1978, Migration by Fourier transform: Geophysics, **43**, 23-48.

Taner, M. T., and F. Koehler, 1969, Velocity spectra—digital computer derivation and applications of velocity functions: Geophysics, **34**, 859–881.

Taylor, D. B., 1987, Double contour integration for transmissions from point sources through anisotropic layers as used in ROCPAC software: Geophysical Journal of the Royal Astronomical Society, **91**, 373–382.

Tessmer, G., and A. Behle, 1988, Common reflection point data-stacking technique for converted waves: Geophysical Prospecting, **36**, 671–688.

Thomsen, L., 1986, Weak elastic anisotropy: Geophysics, **51**, 1954–1966.

——, 1988, Reflection seismology over azimuthally anisotropic media: Geophysics, **53**, 304–313.

——, 1993, Weak anisotropic reflections, *in* J. Castagna and M. Backus, eds., Offset dependent reflectivity: SEG, 103–114.

——, 1999, Converted-wave reflection seismology over inhomogeneous, anisotropic media: Geophysics, **64**, 678–690.

——, 2002, Understanding seismic anisotropy in exploration and exploitation: SEG/EAGE Distinguished Instructor Series.

Toldi, J., T. Alkhalifah, P. Berthet, J. Arnaud, P. Williamson, and B. Conche, 1999, Case study of estimation of anisotropy: The Leading Edge, **18**, 588–594.

Tsvankin, I., 1995a, Normal moveout from dipping reflectors in anisotropic media: Geophysics, **60**, 268–284.

——, 1995b, Body-wave radiation patterns and AVO in transversely isotropic media: Geophysics, **60**, 1409–1425.

——, 1995c, Seismic wavefields in layered isotropic media (course notes): Samizdat Press (http://samizdat.mines.edu).

——, 1996, P-wave signatures and notation for transversely isotropic media: An overview: Geophysics, **61**, 467–483.

——, 1997a, Reflection moveout and parameter estimation for horizontal transverse isotropy: Geophysics, **62**, 614–629.

——, 1997b, Moveout analysis for transversely isotropic media with a tilted symmetry axis: Geophysical Prospecting, **45**, 479–512.

——, 1997c, Anisotropic parameters and P-wave velocity for orthorhombic media: Geophysics, **62**, 1292–1309.

Tsvankin, I., and E. M. Chesnokov, 1987, Plane wave propagation in nonlinear-elastic anisotropic media: Geophysical Journal of the Royal Astronomical Society, **91**, 413–427.

——, 1990a, Synthesis of body-wave seismograms from point sources in anisotropic media: Journal of Geophysical Research, **95** (B7), 11317–11331.

——, 1990b, Synthetic waveforms and polarizations at the free surface of an anisotropic halfspace: Geophysical Journal International, **101**, 497–505.

Tsvankin, I., and V. Grechka, 2000, Dip moveout of converted waves and parameter estimation in transversely isotropic media: Geophysical Prospecting, **48**, 257–292.

——, 2011, Seismology of azimuthally anisotropic media and seismic fracture characterization: SEG.

Tsvankin, I., and L. Thomsen, 1994, Nonhyperbolic reflection moveout in anisotropic media: Geophysics, **59**, 1290–1304.

——, 1995, Inversion of reflection traveltimes for transverse isotropy: Geophysics, **60**, 1095–1107.

Uren, N. F., G. N. F. Gardner, and J. A. McDonald, 1990a, Dip moveout in anisotropic media: Geophysics, **55**, 863–867.

——, 1990b, Normal moveout in anisotropic media: Geophysics, **55**, 1634–1636.

Uzcategui, O., 1995, 2-D depth migration in transversely isotropic media using explicit operators: Geophysics, **60**, 1819–1829.

Uzcategui, O., and D. L. Mujica, 1995, Anisotropic poststack depth migration, eastern Venezuela: 65th Annual International Meeting, SEG, Expanded Abstracts, 1171–1174.

Van der Hijden, J. H. M. T., 1987, Propagation of transient elastic waves in stratified anisotropic media: North Holland Publishing Company.

Vavryčuk, V., 1999, Properties of S-waves near a kiss singularity: A comparison of exact and ray solutions: Geophysical Journal International, **138**, 581–589.

Vavryčuk, V., and I. Pšenčík, 1998, PP-wave reflection coefficients in weakly anisotropic elastic media: Geophysics, **63**, 2129–2141.

VerWest, B. J., 1989, Seismic migration in elliptically anisotropic media: Geophysical Prospecting, **37**, 149–166.

Vestrum, R. W., D. C. Lawton, and R. Schmid, 1999, Imaging structures below dipping TI media: Geophysics, **64**, 1239–1246.

Wild, P., and S. Crampin, 1991, The range of effects of azimuthal isotropy and EDA anisotropy in sedimentary basins: Geophysical Journal International, **107**, 513–529.

Winterstein, D. F., and M. A. Meadows, 1991, Shear-wave polarizations and subsurface stress directions at Lost Hills field: Geophysics, **56**, 1331–1348.

Wright, J., 1987, The effects of transverse isotropy on reflection amplitude versus offset: Geophysics, **52**, 564–567.

This page has been intentionally left blank

Author Index

Subject Index