

Papers and Abstracts by Heloise and Walt Lynn.

Those highlighted in yellow are in the Lynn Inc Papers folder.

Those highlighted in ink are EAGE abstracts that could not be found in digital form.

Those highlighted in turquoise are in books or other publications.

Those highlighted in green are papers authored or co-authored by Walt.

Vetri, L., Loinger, E., Gaiser, J., Grandi, A. and Lynn, H., 2003, 3D/4C Emilio: Azimuth processing and anisotropy analysis in a fractured carbonate reservoir: *THE LEADING EDGE*, **22**, no. 7, 675-679.

Lynn, H., Chen, P. and Hu, C., 2003, Three part series of 3D seismic data visualization and interpretation: *Recorder*, **28**, no. 6, 26-34.

Lynn, H., 2003, P-wave AVOA needs the input of additional information, 73rd Ann. Internat. Mtg.: Soc. of Expl. Geophys., 124-126.

Lynn, H., 2002, A lifestyle of learning, growth, change, and affirmation: *THE LEADING EDGE*, **21**, no. 8, 744-745.

Liu, E., Li, X., Queen, J., Lynn, H., Chapman, M. and Chesnokov, E., 2002, Analysis of fracture-dependent seismic anisotropy from a multicomponent VSP, 72nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 101-104.

Majer, E., Queen, J., Daley, T., Lynn, H., Coates, R., Cox, D., Myer, L., Nakagawa, S., Murphy, J. and Fortuna, M., 2002, Scaling between logs, single well, VSP and surface seismic for fracture quantification in naturally fractured gas reservoirs, 72nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 2381-2384.

Verti, L.M., Angerer, E., Gaiser, J.E., Grandi, A. and Lynn, H., 2002, Emilio Field - Anisotropy Analysis from PP and PS Data, 64th Mtg.: Eur. Assn. Geosci. Eng., F046.

Arnaud, J., Dellinger, J.A., Ikelle, L. T., Lynn, H.B., MacBeth, C., Thomsen, L. and Tsvankin, I., 2001, The Ninth International Workshop on Seismic Anisotropy (9IWSA): *GEOPHYSICS*, Soc. of Expl. Geophys., **66**, 1294-1312.

Lynn, H., Stewart, R. R., Garotta, R. and Thomsen, L., 2001, 4C-ing the future--a word from the "gurus": *THE LEADING EDGE*, **20**, no. 9, 978-982.

MacBeth, C. and Lynn, H., 2001, Mapping fractures and stress using full-offset full-azimuth 3D PP data, 71st Ann. Internat. Mtg: Soc. of Expl. Geophys., 110-113.

Chesnokov, E., Queen, J., Vichorev, A., Lynn, H., Hooper, J., Bayuk, I., Castagna, J. and Roy, B., 2001, Frequency dependent anisotropy, 71st Ann. Internat. Mtg: Soc. of Expl. Geophys., 2120-2123.

Gaiser, J., Loinger, E., Lynn, H. and Vetri, L., 2001, PS-Wave Birefringence Analysis at the Emilio Field for Fracture Characterization, 63rd Mtg.: Eur. Assn. Geosci. Eng., Session: N-07.

Larner, K., Beasley, C.J. and Lynn, W., 2001, In quest of the flank, 3-D Seismic Exploration: Soc. of Expl. Geophys., 220-236.

Lynn, H. B., 2000, Overlap! OTC 2000 and the 9th International Workshop on Seismic Anisotropy, 4C-ing in the real and a part of the world. *The Leading Edge*, **19**, no. 9, 874-

876.

, 2000, Applied seismic anisotropy: Theory, background, and field studies, *in* MacBeth, C. and Lynn, H. B., Ed., Applied seismic anisotropy: theory, background, and field studies: Soc. of Expl. Geophys., 725.

Lynn, H. B. and Thomsen, L. A., 2000, Reflection shear-wave data collected near the principal axes of azimuthal anisotropy, Applied seismic anisotropy: theory, background, and field studies, **20**: Soc. of Expl. Geophys., 383-392.

Lynn, H. B., 2000, Field measurements of azimuthal anisotropy: first 60 meters, San Francisco Bay area, CA, and estimation of the horizontal stresses ratio from VS1/VS2, Applied seismic anisotropy: theory, background, and field studies, **20**: Soc. of Expl. Geophys., 473-483.

Lynn, W., Gonzalez, A. and MacKay, S., 2000, Where are the fault plane reflections?, Applied seismic anisotropy: theory, background, and field studies, **20**: Soc. of Expl. Geophys., 625-628.

Lynn, H. B., Simon, K. M., Layman, M., Schneider, R., Bates, C. R. and Jones, M., 2000, Use of anisotropy in P-wave and S-wave data for fracture characterization in a naturally fractured gas reservoir, Applied seismic anisotropy: theory, background, and field studies, **20**: Soc. of Expl. Geophys., 669-675.

Lynn, H. B., Simon, K. M., Bates, C. R. and van Dok, R., 2000, Azimuthal anisotropy in P-wave 3-D (multiazimuth) data, Applied seismic anisotropy: theory, background, and field studies, **20**: Soc. of Expl. Geophys., 676-681.

Tsvankin, I. and Lynn, H. B., 1999, Special section on azimuthal dependence of P-wave seismic signatures -- Introduction: GEOPHYSICS, Soc. of Expl. Geophys., **64**, 1139-1142.

Grimm, R. E., Lynn, H. B., Bates, C. R., Phillips, D. R., Simon, K. M. and Beckham, W. E., 1999, Detection and analysis of naturally fractured gas reservoirs: Multiazimuth seismic surveys in the Wind River Basin, Wyoming: GEOPHYSICS, Soc. of Expl. Geophys., **64**, 1277-1292.

Lynn, H. B., Beckham, W. E., Simon, K. M., Bates, C. R., Layman, M. and Jones, M., 1999, P-wave and S-wave azimuthal anisotropy at a naturally fractured gas reservoir, Bluebell-Altamont Field, Utah: GEOPHYSICS, Soc. of Expl. Geophys., **64**, 1293-1311.

Lynn, H. B., Campagna, D., Simon, K. M. and Beckham, W. E., 1999, Relationship of P-wave seismic attributes, azimuthal anisotropy, and commercial gas pay in 3-D P-wave multiazimuth data, Rulison Field, Piceance Basin, Colorado: GEOPHYSICS, Soc. of Expl. Geophys., **64**, 1312-1346.

Lynn, H. and Beckham, W., 1998, P-wave azimuthal variations in attenuation, amplitude, and velocity in 3-D field data: Implications for mapping horizontal permeability anisotropy, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 193-196.

Grimm, R. E., Lynn, H. B., Bates, C. R., Mavko, G. M. and Kuuskraa, V., 1998, Detection and analysis of naturally fractured gas reservoirs: Summary and synthesis, 68th Ann. Internat. Mtg: Soc. of Expl. Geophys., 940-943.

Lynn, H. B., Simon, K. M., Kuuskraa, V. and Decker, D., 1997, Case history: Rulison field, Colorado, fracture detection, mapping and analysis of a naturally fractured gas reservoir using P-wave reflection seismic, 67th Ann. Internat. Mtg: Soc. of Expl. Geophys., 202-205.

Decker, D., Squires, S., Kuuskraa, V. A. and Lynn, H. B., 1997, Structural application of high fold, multi-azimuth 3-D P-wave seismic to target subsurface natural fractures in the Rulison field, Piceance Basin, 67th Ann. Internat. Mtg: Soc. of Expl. Geophys., 824-826.

van Dok, R. R., Gaiser, J. E., Jackson, A. R. and Lynn, H. B., 1997, 3-D converted-wave processing: Wind river basin case history, 67th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1206-1209.

Lynn, H. B., Simon, K. M. and Beckham, W., 1997, Fracture detection, mapping and analysis of naturally fractured gas reservoirs using P-wave reflection seismic, 67th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1210-1213.

Grimm, R. E. and Lynn, H. B., 1997, Effects of acquisition geometry, large-scale structure and regional anisotropy on AVOA: An example from the wind river basin, 67th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1997-2000.

Simon, K. M. and Lynn, H. B., 1996, Guest editors' introduction to this issue: THE LEADING EDGE, **15**, no. 08, 905.

Lynn, H. B., Simon, K. M., Bates, C. R. and van Dok, R., 1996, Azimuthal anisotropy in P-wave 3-D (multiazimuth) data: THE LEADING EDGE, **15**, no. 08, 923-928. (* Discussion with reply by authors in TLE-15-12-1318)

Lynn, H. B., Simon, K. M. and Bates, C. R., 1996, Correlation between P-wave AVOA and S-wave traveltime anisotropy in a naturally fractured gas reservoir: THE LEADING EDGE, **15**, no. 08, 931-935.

Kruuskraa, V., Decker, D., Squires, S. and Lynn, H. B., 1996, Naturally fractured tight gas reservoir detection optimization: Piceance Basin: THE LEADING EDGE, **15**, no. 08, 947-948.

Bates, C. R., Phillips, D., Lavelly, E. and Lynn, H. B., 1996, Near surface variability in shear wave velocity anisotropy, 66th Ann. Internat. Mtg: Soc. of Expl. Geophys., 739-742.

Lynn, H. B., Simon, K. M., Bates, C. R. and van Dok, R., 1996, Naturally fractured gas reservoirs' seismic characterization, 66th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1360-1363.

Lynn, H. B., 1996, A geophysicist's view on seismic anisotropy, *in* Rathore, J. S., Ed., Seismic anisotropy: Soc. of Expl. Geophys., 1-14.

Stawicki, A. W. and Lynn, H. B., 1996, Effects of complex tectonic strain observed in two multi-component multi-azimuth VSPs from Pakistan, *in* Rathore, J. S., Ed., Seismic anisotropy: Soc. of Expl. Geophys., 645-683.

Lynn, H. B., Simon, K. M., Bates, C. R., Layman, M., Schneider, R. and Jones, M., 1995, Use of anisotropy in P-wave and S-wave data for fracture characterization in a naturally fractured gas reservoir: THE LEADING EDGE, **14**, no. 08, 887-893.

Lynn, H. B., Simon, K. M., Bates, C. R., Layman, M., Schneider, R. and Jones, M., 1995, Seismic characterization of a naturally fractured gas reservoir, 65th Ann. Internat. Mtg: Soc. of Expl. Geophys., 293-296.

Lynn, H. B., Bates, C. R., Simon, K. M. and van Dok, R., 1995, The effects of azimuthal anisotropy in P-wave 3-D seismic, 65th Ann. Internat. Mtg: Soc. of Expl. Geophys., 727-730.

Bates, C. R., Lynn, H. B. and Layman, M., 1995, Natural fracture characterization using P-wave reflection and multicomponent VSP, 57th Mtg.: Eur. Assn. of Expl. Geophys., Session:C045.

Anderson, J., Thomas, C., Kat, H. and Lynn, W., 1994, Velocity and structural interpretation with 3D pre-stack depth migration, 56th Mtg.: Eur. Assn. of Expl. Geophys., Session:B041.

Lynn, W., MacKay, S. and Beasley, C. J., 1993, Efficient migration through complex water-bottom topography: GEOPHYSICS, Soc. of Expl. Geophys., **58**, 393-398.

Pan, N., Bellingier, C. and Lynn, W., 1993, Radial projection 3D time migration: Theory and case history, 55th Mtg.: Eur. Assn. of Expl. Geophys., Session:C043.

Beasley, C. and Lynn, W., 1992, The zero-velocity layer: Migration from irregular surfaces: GEOPHYSICS, Soc. of Expl. Geophys., **57**, 1435-1443.

Cabrera, J., Perkins, W., Hagen, T., Ratcliffe, D. W. and Lynn, W., 1992, 3-D prestack depth migration: Implementation and case history, 62nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 948-951.

Pan, N., Perkins, W., Lynn, W. and French, W. S., 1992, Efficient 3-D filtering using projected 2-D true-dip sections, 62nd Ann. Internat. Mtg: Soc. of Expl. Geophys., 1042-1045.

Cabrera, J. J., Perkins, W. T., Ratcliff, D. W. and Lynn, W., 1992, 3D prestack depth migration on a massively parallel computer: Implementation and case history, 54th Mtg.: Eur. Assn. of Expl. Geophys., 268-269.

Pan, N., Perkins, W. T., French, W. S. and Lynn, W., 1992, Exact and efficient three-pass 3D time migration for vertically inhomogeneous media, 54th Mtg.: Eur. Assn. of Expl. Geophys., 282-283.

Cabrera, J., Perkins, W., Lynn, W., Ratcliffe, D. and French, W., 1992, 3-D pre-stack depth migration: Implementation and case history: 9th Geophysical Conference, Austr. Soc. Expl. Geophys., **23**, 43-46.

Li, Z., Lynn, W., Chambers, R., Larner, K. and Abma, R., 1991, Enhancements to prestack frequency-wavenumber (f-k) migration: GEOPHYSICS, Soc. of Expl. Geophys., **56**, 27-40.

Lynn, H. B., 1991, Field measurements of azimuthal anisotropy: First 60 meters, San Francisco Bay area, CA, and estimation of the horizontal stresses' ratio from V_{s1}/V_{s2} : GEOPHYSICS, Soc. of Expl. Geophys., **56**, 822-832. (* Discussion and reply by author in GEO-57-4-653-656)

Lynn, W., Gonzalez, A. and MacKay, S., 1991, Where are the fault-plane reflections?, 61st Ann. Internat. Mtg: Soc. of Expl. Geophys., 1151-1154.

Gonzalez, A., Lynn, W. and Robinson, W. F., 1991, Prestack frequency-wavenumber f-k migration in a transversely isotropic medium, 61st Ann. Internat. Mtg: Soc. of Expl. Geophys., 1155-1157.

Gonzalez, A. and Lynn, W., 1991, Prestack frequency-wavenumber (f-k) migration in a transversely isotropic medium, 53rd Mtg.: Eur. Assn. of Expl. Geophys., 132-133.

Beasley, C. J. and Lynn, W., 1991, The zero-velocity layer: Migration from irregular surfaces: 8th Geophysical Conference, Austr. Soc. Expl. Geophys., **22**, 35-40.

Lynn, H. B. and Thomsen, L. A., 1990, Reflection shear-wave data collected near the principal axes of azimuthal anisotropy : GEOPHYSICS, Soc. of Expl. Geophys., **55**, 147-156. (* Erratum in GEO-55-7-948-948)

Lynn, H. B. and McCardle, M., 1990, Four three-component VSPs from south Texas onshore: S-wave velocities for AVO, and discussion of acquisition parameters, 60th Ann. Internat. Mtg: Soc. of Expl. Geophys., 52-55.

Lynn, W., MacKay, S. and Beasley, C. J., 1990, Efficient migration through irregular water-bottom topography, 60th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1297-1300.

Larner, K. L., Beasley, C. J. and Lynn, W. S., 1989, In quest of the flank : GEOPHYSICS, Soc. of Expl. Geophys., **54**, 701-717. (* Erratum in GEO-54-7-932-932; Discussion in GEO-54-12-1648-1650 with reply by authors)

Lynn, W. and Larner, K., 1989, Effectiveness of wide marine seismic source arrays: Geophys. Prosp., Eur. Assn. Geosci. Eng., **37**, 181-208.

Beasley, C. J. and Lynn, W., 1989, Zero-velocity layer: Migration from irregular surfaces, 59th Ann. Internat. Mtg: Soc. of Expl. Geophys., 1179.

Lynn, W., MacKay, S., Beasley, C., Chambers, R. and Connelly, D., 1989, The zero-velocity layer: Efficient wave-theoretical treatment of complex overburdens, 51st Mtg.: Eur. Assn. of Expl. Geophys., 95.

Beasley, C., Lynn, W., Larner, K. and Nguyen, H., 1988, Cascaded frequency-wavenumber migration - Removing the restrictions on depth-varying velocity: GEOPHYSICS, Soc. of Expl. Geophys., **53**, 881-893.

Lynn, W., Doyle, M., Larner, K. and Marschall, R., 1987, Experimental investigation of interference from other seismic crews: GEOPHYSICS, Soc. of Expl. Geophys., **52**, 1501-1524.

Beasley, C., Lynn, W., Larner, K. and Nguyen, H. V., 1987, Extended Stolt f-k migration, 57th Ann. Internat. Mtg: Soc. of Expl. Geophys., Session:S7.2.

Beasley, C., Lynn, W. and Larner, K., 1987, Migration in stages, *in* Scales, J. A., Ed., Geophysical imaging, symposium of geophysical society of Tulsa: Soc. of Expl. Geophys., 138-150.

Lynn, H. B. and Thomsen, L. A., 1986, Reflection shear-wave data along the principal axes of azimuthal anisotropy, 56th Ann. Internat. Mtg.: Soc. of Expl. Geophys., Session:S9.5.

Doyle, M., Lynn, W., Marschall, R. and Larner, K., 1985, A discussion of seismic acquisition specs: Example of shot noise from other crews, 55th Ann. Internat. Mtg: Soc. of Expl. Geophys., Session:S14.7.

Larner, K., Chambers, R., Yang, M., Lynn, W. and Wai, W., 1983, Coherent noise in marine seismic data: GEOPHYSICS, Soc. of Expl. Geophys., **48**, 854-886.

Lynn, W. and Larner, K., 1983, Effectiveness of wide marine source arrays, 53rd Ann. Internat. Mtg: Soc. of Expl. Geophys., Session:S1.6.

Lynn, W. S. and Claerbout, J. F., 1982, Velocity estimation in laterally varying media: GEOPHYSICS, Soc. of Expl. Geophys., **47**, 884-897.

Johnson, J. D. and Lynn, W. S., 1982, Research workshop 4 -- migration: Fundamental issues and future developments, 52nd Ann. Internat. Mtg. Soc. of Expl. Geophys., Session:RW.4.

Lynn, H. B. and Deregowski, S., 1981, Dip limitations on migrated sections as a function of line length and recording time : GEOPHYSICS, Soc. of Expl. Geophys., **46**, 1392-1397. (* Discussion in GEO-49-10-1804)