Stanford



Jon Claerbout

Cecil H. and Ida M. Green Professor of Geophysics, Emeritus

Bio

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Geophysics

ADMINISTRATIVE APPOINTMENTS

- Scientist, United Electrodynamics, Seismic Data Laboratory, Alexandria, Virginia, (1963-1963)
- Consultant, Chevron Oil Field Research Company, (1967-1973)
- Assistant Professor, Geophysics Department, Stanford University, (1967-1971)
- Associate Professor of Geophysics, Stanford University, (1971-1977)
- Research Geologist, Princeton University, (1972-1973)
- Visiting Lecturer, Applied Mathematics Department, Sydney University, (1973-1973)
- Professor, Geophysics, Stanford University, (1977- present)
- Sabbatical leave to the Geophysics Department, Cambridge University, (1979-1980)
- Sabbatical leave to Scripps, Melbourne, Tel Aviv, and Milan, Stanford University, (1993-1994)

HONORS AND AWARDS

- Best Presentation Award for paper entitled, Exploration of Field Waves, Society of Exploration Geophysicists (1972)
- Medal Award in recognition of his outstanding and original pioneering work in seismic wave analysis, Society of Exploration Geophysicists (1973)
- Elected Fellow, American Society of Exploration Geophysicists (1977)
- Honorary Member, Society of Exploration Geophysicists (1985)
- Cecil H. and Ida M. Green Professorship in Geophysics, Stanford University (1987)
- Member, National Academy of Engineering (1988)
- Best Poster Award (with Steve Cole), Society of Exploration Geophysicists (1990)
- Outstanding Teacher Award, Stanford University School of Earth Sciences (1991)
- Maurice Ewing Medal, Society of Exploration Geophysicists' highest award (1992)
- Erasmus Award, European Association of Geoscientists and Engineers (EAGE's highest award) (2000)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Electronic Communications Committee, Society of Exploration Geophysicists (1993 - present)
- Advisory Board, Colorado School of Mines (1990 - 1999)
- Coordinator and chief fundraiser for skylight and lounge project on fourth floor of the Mitchell Building, Stanford University (1997 - 1998)

- Coordinator of search committee for research professor in reflection seismology, Stanford University (1998 - 1999)
- Committee member for PE faculty search(es), Stanford University (1998 - 1998)

PROFESSIONAL EDUCATION

- Ph.D., Massachusetts Institute of Technology , Geophysics (1967)
- M.S., Massachusetts Institute of Technology , Geophysics (1963)
- B.S., Massachusetts Institute of Technology , Physics (1960)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Reflection Seismology

Publications

PUBLICATIONS

- **Hyperbolic estimation of sparse models from erratic data** *GEOPHYSICS*
  Li, Y., Zhang, Y., Claerbout, J.
  2012; 77 (1): V1-V9
- **An algorithm for interpolation in the pyramid domain** *GEOPHYSICAL PROSPECTING*
  Guitton, A., Claerbout, J.
  2010; 58 (6): 965-975
- **Smoothing imaging condition for shot-profile migration** *GEOPHYSICS*
  Guitton, A., Valenciano, A., Bevc, D., Claerbout, J.
  2007; 72 (3): S149-S154
- **Flattening without picking** *GEOPHYSICS*
  Lomask, J., Guitton, A., Fomel, S., Claerbout, J., Valenciano, A. A.
  2006; 71 (4): P13-P20
- **Interpolation of bathymetry data from the Sea of Galilee: A noise attenuation problem** *GEOPHYSICS*
  Guitton, A., Claerbout, J.
  2004; 69 (2): 608-616
- **Incorporating geologic information into reflection tomography** *GEOPHYSICS*
  Clapp, R. G., Biondi, B., Claerbout, J. F.
  2004; 69 (2): 533-546
- **The Wilson-Burg method of spectral factorization with application to helical filtering** *GEOPHYSICAL PROSPECTING*
  Fomel, S., Sava, P., Rickett, J., Claerbout, J. F.
  2003; 51 (5): 409-420
- **Multidimensional recursive filter preconditioning in geophysical estimation problems** *GEOPHYSICS*
  Fomel, S., Claerbout, J. F.
  2003; 68 (2): 577-588
- **Making scientific computations reproducible** *COMPUTING IN SCIENCE & ENGINEERING*
  Schwab, M., Karrenbach, M., Claerbout, J.
  2000; 2 (6): 61-67
- **Calculation of the Sun's acoustic impulse response by multi-dimensional spectral factorization** *SOLAR PHYSICS*
  Rickett, J. E., Claerbout, J. F.
  2000; 192 (1-2): 203-210

- **Multidimensional recursive filters via a helix** *Society-of-Exploration-Research Workshop*
  Claerbout, J.
  SOC EXPLORATION GEOPHYSICISTS.1998: 1532–41
- **LATERAL PREDICTION FOR NOISE ATTENUATION BY T-X AND F-X TECHNIQUES** *GEOPHYSICS*
  Abma, R., Claerbout, J.
  1995; 60 (6): 1887-1896
- **SIMULTANEOUS PRE-NORMAL MOVEOUT AND POST-NORMAL MOVEOUT DECONVOLUTION** *GEOPHYSICS*
  Claerbout, J. F.
  1986; 51 (7): 1341-1354
- **SURFACE-CONSISTENT RESIDUAL STATICS ESTIMATION BY STACK-POWER MAXIMIZATION** *GEOPHYSICS*
  Ronen, J., Claerbout, J. F.
  1985; 50 (12): 2759-2767
- **VELOCITY-STACK AND SLANT-STACK STOCHASTIC INVERSION** *GEOPHYSICS*
  THORSON, J. R., Claerbout, J. F.
  1985; 50 (12): 2727-2741
- **THE MIGRATION OF COMMON MIDPOINT SLANT STACKS** *GEOPHYSICS*
  OTTOLINI, R., Claerbout, J. F.
  1984; 49 (3): 237-249
- **WAVE-EQUATION VELOCITY ANALYSIS** *GEOPHYSICS*
  GONZALEZSERRANO, A., Claerbout, J. F.
  1984; 49 (9): 1432-1456
- **SIGNAL NOISE SEPARATION AND VELOCITY ESTIMATION** *GEOPHYSICS*
  HARLAN, W. S., Claerbout, J. F., Rocca, F.
  1984; 49 (11): 1869-1880
- **PREDICTIVE DECONVOLUTION IN SHOT-RECEIVER SPACE** *GEOPHYSICS*
  Morley, L., Claerbout, J.
  1983; 48 (5): 515-531
- **BUTTERWORTH DIP FILTERS** *GEOPHYSICS*
  Hale, D., Claerbout, J. F.
  1983; 48 (8): 1033-1038
- **VELOCITY ESTIMATION IN LATERALLY VARYING MEDIA** *GEOPHYSICS*
  Lynn, W. S., Claerbout, J. F.
  1982; 47 (6): 884-897
- **WIDE-ANGLE DIFFRACTED MULTIPLE REFLECTIONS** *GEOPHYSICS*
  Estevez, R., Claerbout, J. F.
  1982; 47 (9): 1255-1272
- **SPECTRAL BALANCING IN THE TIME DOMAIN** *GEOPHYSICS*
  Tufekcic, D., Claerbout, J. F., RASPERIC, Z.
  1981; 46 (8): 1182-1188
- **PRESTACK PARTIAL MIGRATION** *GEOPHYSICS*
  Yilmaz, O., Claerbout, J. F.
  1980; 45 (12): 1753-1779
- **VELOCITY ESTIMATION AND DOWNWARD CONTINUATION BY WAVEFRONT SYNTHESIS** *GEOPHYSICS*
  SCHULTZ, P. S., Claerbout, J. F.
  1978; 43 (4): 691-714

- **STRUCTURE INDEPENDENT VELOCITY ESTIMATION** *GEOPHYSICS*
  Doherty, S. M., Claerbout, J. F.
  1976; 41 (5): 850-881
- **2-D MULTIPLE REFLECTIONS** *GEOPHYSICS*
  Riley, D. C., Claerbout, J. F.
  1976; 41 (4): 592-620