

Curriculum Vitae

Robert W. Wiley

Overview

27 years experience in industry research, project management. Customer support, and in-service education and training in a major oil company.

My career is characterized by the development and deployment of algorithmic solutions to meet immediate exploration and production needs ranging from seismic signal analysis, through seismic modeling and migration, to seismic attributes and inversion for lithology.

Education

Ph.D. Colorado School of Mines, Golden, CO (1980) Geophysical Engineering

M.S. Colorado School of Mines, Golden, CO (1972) Mathematics

B.S. Colorado School of Mines, Golden, CO (1971) Mineral Engineering Mathematics

Continuing Education: Partial list includes:

The Convolutional Algorithm

Offshore Survival

AVO-Seismic Lithology

Promax 3D

Disco

Geodepth 2D

Sirius 2-D

Sirius 3-D

Seismic Lithology

Seismic Tomography

VSP Acquisition, Processing, and Interpretation

Seismic Inversion

Amplitude vs. Offset

Lateral Communication

Interpretative View of Migration

Rock Physics for Geophysicists

Borehole Geophysics

Introduction to Seismic Inversion Methods

Employment History

2001-Present: Research Associate Professor, Allied Geophysical Labs, University of Houston.

2000-2001: Adjunct Professor, Allied Geophysical Labs, University of Houston.

Marathon Oil Company
Special Projects
PO. Box 3128
Houston, TX 77253

1994-2000: Advanced Senior Geophysicist (Emerging Technologies)

Involved in large scale Kirchhoff migration research at LANL. Participated in subsalt imaging research involving SEG, AGL and Marathon Oil. Technical coordinator for a 3-D VSP in Gulf of Suez. Researched multi-component data acquisition and processing. Developed a new down-hole seismic source and associated 3-D RVSP software.

Marathon Oil Company
Denver Research Center
6400 S. Broadway
Littleton, CO 80122

1989-1994: Advanced Senior Geophysicist (Exploration-Production Technology)

Developed algorithms for cross-well processing and migration, turning waves wave modeling and migration. Continued research in seismic attribute analysis, collaborating with CSM, MIT

1986-1989: Senior Geophysicist (Geological-Geophysical Research)

1982-1986: Senior Geophysicist (Geological-Geophysical Research)

Developed algorithms for 2-D and 3-D salt proximity analysis. Worked with engineers at Marathon to develop new reservoir fracture model and associated software.

1980-1982: Advanced Geophysicist (Geological-Geophysical Research)

1978-1980: Geophysicist (Geological-Geophysical Research)

Developed 2-D inverse modeling technology, 3-D map migration. Analyzed acquisition, processing, and interpretation problems in the Rocky Mountain region. Developed technology for imaging flanks of salt structures.

1974-1978: Associate Geophysicist (Production Technical Services, USA & Canada)

Responsible for developing, maintaining seismic modeling algorithms. Developed database for large volume Gulf of Alaska seismic data along Designed and implemented interpretation and imaging technology for the database.

1973-1974: Computer Analyst (Production Technical Services, USA & Canada)

Maintained and enhanced existing 1-D and 2-D modeling code. Supported operations with tailored software development.

Professional Activities

Member: SEG

Chairman, Next Generation Numerical Modeling Subcommittee to the Research Committee of the S.E.G.

Member of the National Science Foundation (NSF) Small Business Innovation Research (SBIR) Phase I Review Panel on Seismology-Hydrology-Electric Power, Etc.

Publications

1991, Ray-trace Modeling for Salt Proximity, in Fagin, S. W., Ed., Seismic Modeling of Geologic Structures

1996, Salt Canopy 3-D Physical Modeling Project, S.E.G. Annual Meeting Abstracts, Society of Exploration Geophysicists, p.p. 57-59.

1997, Numerical and Measured Data from The 3-D Salt Canopy Physical Modeling Project, S.E.G. Annual Meeting Abstracts, Society of Exploration Geophysicists, p.p. 1476-1479.

1998, Unraveling Sub-Salt Seismic, a Model Study, S.E.G. Gulf Coast Technical Meeting

1999, Subsalt Depth Imaging Using 3-D VSP Technique in the Ras El Ush Field, Gulf of Suez, Egypt, GeoArabia, v.4, n.3

1999, Imaging and Modeling Seismic Data from a Physical Model of the SEG/EAGE Salt Structure, S.E.G. Annual Meeting Abstracts, Society of Exploration Geophysicists

2001, 3-D imaging of seismic data from a physical model of a salt structure, S.E.G. Annual Meeting Abstracts, Society of Exploration Geophysicists

Patents

No. 60/095,277 Apparatus and Method for Generating Seismic Energy in Subterranean Formations, CA Meeder, RW Wiley, P Snider, J Haney, J Schatz

Computer Skills

Extensive experience in Fortran and C programming, Motif, and OpenGL from workstation through supercomputer. Processing experience with commercial packages, depth migration experience with Sirius and Geodepth. Modeling experience with Sierra packages and GXII.

Special Attributes

Extensive personal contacts international exploration, and exploration research communities.

Outside Interests

Water exploration in third world countries. Training and equipping people in developing countries to drill and produce clean, safe, drinking water.