Curriculum vitae

General Information

Surname Name: Soleimani Monfared **Name:** Mehrdad

Academic Information: (Associate Professor in Exploration Seismology)

Bachelor of Science (B.Sc.) (Mineral Exploration)	Yazd University, Yazd, Iran. From 1998 to 2002.
Master of Science (M.Sc.) (Mineral Exploration)	Amir Kabir University of Technology, (Tehran Polytechnic), Tehran, Iran. From 2002 to 2004.
Doctor of Philosophy (Ph.D.) (Seismic Exploration.)	Shahrood University of Technology, (SHUT) Shahrood, Iran. From 2004 to 2009. Guest Ph.D. student in Karlsruhe University of Technology, (KIT) Germany.

Ph.D. Thesis Title:
Common Diffraction Surface (CDS) stack, a new approach in solving the problem of conflicting dips.

Supervisor: Dr. Iradj Piruz, Shahrood University of Technology, Shahrood, Iran.
Supervisor: Prof. Peter Hubral, Karlsruhe University of Technology, (KIT) Germany.
Advisor: Dr. Jürgen Mann, Karlsruhe University of Technology, (KIT) Germany

Experiences:

- Visiting the "*Geophysikalisches Institute,* Karlsruhe Institute für Technology (KIT)" Germany, for research activities in FWI method, 2018.

- Visiting the "*Geophysikalisches Institute*, Karlsruhe Institute für Technology (KIT)" as a Ph.D. guest student, 2008.

- Organizer of the workshop entitled "the art of science" in University of Shahrood under the supervision of EAGE. Lecturer: Professor Rule Snieder from Colorado school of mine. 2014.

Teaching Information

Lecturer of courses in MSc. (from 2009 to present):

- **Seismic reflection data processing**
  To Master students of Seismology,
  Reference book in course: Seismic data Analysis, Yilmaz (2001), Seismic Imaging, Robein (2010).

- **Seismic reflection data interpretation**
  To Master students of Seismology,
  Reference book in course: Practical Seismic interpretation, Badly (1994) 3D interpretation of 3D Seismic Data, Brown, (2011)

- **Geotechnical site characterization**
  To Master students of Seismology,
  Reference book in course: Geotechnical and Geophysical Site Characterization, Coutinho and Mayne (2012)

Lecturer of courses in BSc. (from 2008 to present)

- **Principles of hydrocarbon exploration**
  To bachelor students of mineral exploration
  Reference book in course Nontechnical Guide to Petroleum Geology, Exploration, Drilling & Production. Hyne (2005).

- **Exploration Geophysics**
  To bachelor students of mineral exploration
  Reference book in course, An Introduction to Geophysical Exploration, Keary et al. (2002).

- **Programing by C++**
  To bachelor students of mineral exploration
  Reference book in course: A general text book in C++ Programming.

Expertise

Languages

English Language	Fluent in speaking, writing and reading.
Deutsch	Not Professional

Software

Seismic Unix, Promax, Petrel and C++ programing.
Working with other software: Hampson Russell, Kingdom Suite.

Contact Information

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Research gate

Name: Mehrdad Soleimani, RG Score: 19.20, Citations: 79

LinkedIn:

Name: Mehrdad Soleimani, Connections: 534,

Academia:

Name: Mehrdad Soleimani, within top 25% of researcher in Academia

Google Scholar:
Name: Mehrdad Soleimani,

Posting Address: No. 37, Faculty of Mining, Petroleum and Geophysics, Shahrood University of Technology, Shahrood, Iran.

Tel. and Fax: +98(23) 3239 5509

A) Publications with peer review process

International Peer Reviewed Journals:

Soleimani, M.* Aghajani, H., and Heydari-Nejad, S., (2018). Structure of giant buried mud volcanoes in the South Caspian Basin: enhanced seismic image and field gravity data by using normalized full gradient method. Interpretation, 6(4), T861-T872. https://doi.org/10.1190/INT-2018-0009.1

Soleimani, M.* Aghajani, H., and Heydari-Nejad, S., (2018) Salt dome boundary detection in seismic image via resolution enhancement by the improved NFG method, Acta Geodaetica et Geophysica, 53(3), 463-478. https://doi.org/10.1007/s40328-018-0222-3

Farrokhnia, F. Roshandel Kahoo, A., **Soleimani, M.*** (2018), Automatic salt dome detection in seismic data by combination of attribute analysis on CRS images and IGU map delineation. Journal of Applied Geophysics, 159, 395-407, https://doi.org/10.1016/j.jappgeo.2018.09.018

Alaei, N., Roshandel Kahoo, A.* Kamkar Rouhani, A., and **Soleimani, M.,** (2018), Seismic resolution enhancement using scale transform in time-frequency domain. Geophysics. 83(6), V305-V314. https://doi.org/10.1190/geo2017-0248.1

Soleimani, M.* (2017), Challenges of seismic imaging in complex media around Iran, from Zagros overthrust in the southwest to Gorgan Plain in the northeast. The Leading Edge, 36(6), 499–506.
https://doi.org/10.1190/tle36060499.1

Soleimani, M.* (2017), Naturally fractured hydrocarbon reservoir simulation by elastic fractures modeling. Petroleum Science, 14, 286–301. https://doi.org/10.1007/s12182-017-0162-5

Soleimani, M.* (2017), Well performance optimization for gas lift operation in a heterogeneous reservoir by fine zonation and different well type integration. Journal of Natural Gas Science and Engineering, 40, 277-287. http://dx.doi.org/10.1016/j.jngse.2017.02.017

Moradpouri, F.* Moradzadeh, A., Pestana, R.N.C., Ghaedrahmati, R., and **Soleimani, M.,** (2017), An improvement in wave-field extrapolation and imaging condition to suppress RTM artifacts, 82(6), S403-S409. Geophysics, https://doi.org/10.1190/geo2016-0475.1

Soleimani, M.* Jodeiri, B., and Rafie, M., (2016), Integrated petrophysical modeling for a strongly heterogeneous and fractured reservoir, Sarvak Formation, SW Iran. Natural Resources Research. 26(1) 75-88. http://dx.doi.org/10.1007/s11053-016-9300-9.

Soleimani, M.* (2016), Seismic image enhancement of mud volcano bearing complex structure by the CDS method, a case study in SE of the Caspian Sea shoreline. Russian Geology and Geophysics, 57, 1757–1768. https://doi.org/10.1016/j.rgg.2016.01.020

Soleimani, M.* Jodeiri, B., and Rafie, M., (2016), Improvement of seismic structural interpretation of Zagros fold-thrust belt by dip scanning in common diffraction surface imaging method. Acta Geodaetica et Geophysica, 52(3), 283-299. http://dx.doi.org/10.1007/s40328-016-0182-4.

Soleimani, M.* (2016), Seismic imaging by 3D partial CDS method in complex media. Journal of Petroleum Science and Engineering, 143, 54–64. http://dx.doi.org/10.1016/j.petrol.2016.02.019.

Soleimani, M.* Rafie, M., (2016) Imaging of seismic data in complex structures by introducing the partial diffraction surface stack method. Studia Geophysica et Geodaetica. 60 (94), 644-661, https://doi.org/10.1007/s11200-015-0942-6

Shahbazi, A.* Ghosh, D., **Soleimani, M.** and Gerami, A., (2016), Seismic imaging of complex structures with the CO-CDS stack method. Studia Geophysica et Geodaetica. 60 (4), 662-678, http://dx.doi.org/10.1007/s11200-015-0452-6.

Soleimani, M.* Balarostaghi, M., (2016), Seismic image enhancement in post stack depth migration by finite offset CDS stack method. Journal of Petroleum Exploration and Production Technology, 6, 605–615. http://dx.doi.10.1007/s13202-016-0235-9.

Soleimani, M.* and Jodeiri, B., (2016), Intrinsic geological model generation for chromite pods in the Sabzevar ophiolite complex, NE Iran. Ore Geology Reviews, 78, 138–150. http://dx.doi.org/10.1016/j.oregeorev.2016.03.013.

Fa'al Rastegar, S.A.* Javaherian, A., Keshavarz Farajkhah, N., **Soleimani, M.,** and Zarei, A., (2016), Effective parameters in ground roll attenuation using FO CRS stacking. Journal of Applied Geophysics. 135, 249-260. http://dx.doi.org/10.1016/j.jappgeo.2016.10.001.

Fa'al Rastegar, S.A.* Javaherian, A., Keshavarz Farajkhah, N., **Soleimani, M.,** and Zarei, A., (2016), Ground-roll attenuation using modified common offset common reflection surface stacking, Applied Geophysics, 13(2), 353-363, http://dx.doi.org/10.1007/s11770-016-0529-1.

Moradpouri, F.* Morad-Zadeh, A., Pestana, R.C., and **Soleimani, M.,** (2016), Seismic reverse time migration using a new wave field extrapolator and a new imaging condition. Acta Geophysica, 64(5), 1673-1690, http://dx.doi.org/10.1515/acgeo-2016-0076.

Soleimani, M.* (2015) Seismic imaging of mud volcano boundary in the east of the Caspian Sea by common diffraction surface stacks method. Arabian Journal of Geoscience, 8, 3943 –3958. http://dx.doi.org/10.1007/s12517-014-1497-5.

Soleimani, M., and Jodeiri, B., (2015), 3D static reservoir modeling by geostatistical techniques used for reservoir characterization and data integration. Environmental Earth Science, 74, 1403–1414. http://dx.doi.org/10.1007/s12665-015-4130-3.

Soleimani, M.* (2013), Simulation of petroleum exploration based on a conceptual decision model: Taking the Dezful Embayment in southwestern Iran as an example. Petroleum Exploration and Development, 40(4), 476-480. https://doi.org/10.1016/S1876-3804(13)60060-9

Soleimani, M.* Piruz, I., Hubral, P. and Mann, J., (2009), Common reflection surface stack, accounting for conflicting dips situation by considering all possible dips. Journal of Seismic Exploration. 18, 271-288.

Internal Peer Reviewed Journal

Fa'al Rastegar, S. A.* Javaherian, A., Keshavarz Farajkhah, N., **Soleimani, M.,** and Zarei, A., (2018), Ground Roll and Random Noise Attenuation Using Common Offset Common Reflection Surface Stacking. Petroleum Research, 28(100) 1-3. http://dx.doi.org/10.22078/pr.2018.2475.2146

Ebrahimi, H.* Kamkar Rouhani, A., and **Soleimani, M.,** (2018), Introduction of Developed Reservoir Quality Index in Characterization of Hydrocarbon Reservoirs, Study of Kangan Formation in one of Field in South of Iran. Petroleum Research, 28(100), 44-48. http://dx.doi.org/10.22078/pr.2018.2935.2372

Chambari, R.* Roshandel Kahoo, A., Yousefi, M., and Soleimani, M., (2018), Identification of salt dome boundary by integration of seismic attributes in GIS environment, Journal of research on applied geophysics, 4(2), 277-292. http://dx.doi.org/10.22044/JRAG.2018.5685.1113

Moradpouri, F.* Morad-Zadeh, A., Pestana, R.C., and Soleimani, M., (2017), An improvement in RTM method to image steep dip petroleum bearing structures and its superiority to other methods. Journal of Mining and Environment. 8(4), 573-578. http://dx.doi.org/10.22044/JME.2016.635

Pahlavanloo, A., **Soleimani, M.*** and Gallo, C., (2017) Improving seismic image in complex structures by new solving strategies in the CO-CRS and the CO-CDS methods. Iranian Journal of Geophysics, 10(5), 42-56.

Moradpouri, F.* Moradzadeh, A., Pestana, R.N.C., and **Soleimani, M., (2016),** A new numerical and analytical scheme to solve the full wave equation for seismic modeling based on REM and Leapfrog methods. Journal of analytical and numerical methods in mining engineering, 5(10), 41-48.

Soleimani, M.* Khalilzadeh, A., (2016) Seismic imaging of complex structures by integrating pre-stack time migration and surface stacking methods. Journal of the earth and space physics. 42(2), 293-308. http://dx.doi.org/10.22059/JESPHYS.2016.57737

Soleimani, M.* and Mohammadi S., (2015), Smoothing imaging condition and handling lateral velocity change in Gaussian Beam seismic imaging. Journal of research on applied geophysics. 1(1), 45-58, http://dx.doi.org/10.22044/JRAG.2015.598

Moradpouri, F.* Moradzadeh, A., Pestana, R.N.C., and **Soleimani, M.,** (2015), A new formulation for extrapolation of seismic wave field response and its derivatives. Journal of advanced mathematical modeling. 5(2), 47-58 http://dx.doi.org/10.22055/JAMM.2016.12028

Baghzendani, H.R., Aghajani, H.* and **Soleimani, M**., (2015). Subsurface modeling of mud volcanoes, using density model and analysis of seismic velocity. Journal of Mining and Environment. 6(1), 31-39. http://dx.doi.org/10.22044/JME.2015.383

Soleimani, M.* Shahsavani, H., and Mann, J., (2014) Fault detection in reflection seismic data by common diffraction surface stack, a case study in Rheine Graben, Germany. Journal of the earth and space physics. 39(4), 31-44. http://dx.doi.org/10.22059/JESPHYS.2013.35978

Vahid Hashemi, M., and **Soleimani, M.*** (2014), Lateral velocity heterogeneities modeling in seismic tomography by introducing different initial velocity models. Iranian Journal of Geophysics, 8(4), 132-167.

Soleimani, M.* Adibi, E., Shahsavani, H., and Sokooti, M.R., (2013), Seismic imaging in geologically complex thrust belts by kinematic wavefield attributes. Iranian Journal of Geophysics, 7(4), 95-116.

B) Published manuscripts without peer review process

Shahbazi, A.* Ghosh, D**., Soleimani, M.,** and Mann J., (2014), Solving the conflicting dips problem in complex media by considering all possible dips in CRS method. International Petroleum Technology Conference (IPTC) Doha, Qatar. IPTC-17359.

Soleimani, M.* Adibi, E., Mann, J., and Sokooti, M.R., (2012), Offset limited CDS stack a new technique to optimize common diffraction surface stack method, 74th EAGE Conference and Exhibition, Copenhagen, Denmark.

Balarostaghi, M., **Soleimani, M.*** Mann, J., Piruz, I., Shahsavani, H., (2012), Finite offset CDS stack; a new technique to optimize common diffraction surface stack method. Istanbul International Geophysical Conference and Oil & Gas Exhibition, Istanbul, Turkey.

Shahsavani, H.* Mann, J., **Soleimani, M.,** Sokooti, M., and Vahid Hashemi, M., (2012), Seismic velocity model building by NIP-Wave tomography, A case study in Iran. Istanbul International Geophysical Conference and Oil & Gas Exhibition, Istanbul, Turkey.

Soleimani, M.* Mann, J., Shahsavani, H., and Hubral, P., (2012) Finding the Zagros thrust fold belt scenario in Izeh zone through enhanced CRS seismic section. Istanbul International Geophysical Conference and Oil & Gas Exhibition, Istanbul, Turkey.

Soleimani, M.* Mann, J., Shahsavani, H., Shahbazi, A., (2012) Structural interpretation of east Dezful Embayment in Zagros fold-thrust belt by seismic sections. Istanbul International Geophysical Conference and Oil & Gas Exhibition, Istanbul, Turkey.

Soleimani, M.* Mann, J., Khalilzadeh, H., Jamali, J., (2012) Seismic imaging in complex region of Zagros thrust fault belt by CRS and CDS stack method. Istanbul International Geophysical Conference and Oil & Gas Exhibition, Istanbul, Turkey.

Soleimani, M., Adibi, E., and Mann, J., (2011), Imaging in Complex Structures by Post-stack Time Migration and CRS Stack. 12th International Congress of the Brazilian Geophysical Society, Rio de Janeiro, Sociedade Brasileira de Geofísica, (SBGf).

Adibi. E.* **Soleimani. M.,** Mann, J., and Sokooti, M.R. (2011) Optimizing the common diffraction surface stack method by an offset limited approach. IAMG Conference, Salzburg, Austria. 553-560.

Adibi. E.* **Soleimani. M.,** Mann, J., and Sokooti, M.R. (2011) Event enhancement by applying post stack time migration on CRS Stacked section. IAMG Conference, Salzburg, Austria. 581-588.

Soleimani, M.* Mann, J., Adibi, E. and Piruz, I., (2010) Improving the seismic image quality in semi-complex structures in north east Iran by the CDS stack method. 72nd EAGE, Barcelona.

Soleimani, M.* Mann, J., Adibi, E. and Piruz, I., (2010) Applying the CRS stack method to solve the problem of imaging of complex structures in the Zagros overthrust, south west Iran. 72nd EAGE Barcelona.

Soleimani, M.* Iradj Piruz, I. and Mann. J., (2009), Common Diffraction Surface (CDS) stack: A new approach in seismic data processing to solve the problem of conflicting dips. The 3rd international scientific conference of young scientists and students. Baku, Azerbaijan.

Abolghasemifar, A.* **Soleimani, M.,** and Aghajani, H., (2009) Acoustic wave propagation in strongly heterogeneous media: A Lattice – Boltzmann approach. 9th international multidisciplinary geo-conference, SGEM, Varna, Bulgaria.

Soleimani, M.* Piruz, I., Mann, J. and Hubral, P. (2009) Solving the problem of conflicting dips in common reflection surface (CRS) stack. 1st International Petroleum Conference & Exhibition, Shiraz, (EAGE), Extended Abstracts, A39.

Soleimani, M.* and Mann, J., (2009) Merging aspects of DMO correction and CRS stack to account for conflicting dip situation. 12th Wave Inversion Technology (WIT) Meeting, Hamburg, Germany.

Soleimani. M.* and Piruz. I., (2007) Common reflection surface stack, new method in seismic reflection data processing: A synthetic data example. The 19th International Geophysical Conference & Exhibition of Australian Society of Exploration Geophysists (ASEG), Australia, Perth.

Soleimani. M.* and Piruz. I., (2007) NIP tomography inversion, a new improved method for velocity model estimation; synthetic data example. The 19th International Geophysical Conference & Exhibition of Australian Society of Exploration Geophysists (ASEG), Australia, Perth.

Soleimani. M.* and Piruz. I., (2007) Obtaining velocity model with kinematic wavefield attributes by tomography inversion. 7th International Scientific Conference of SGEM, Bulgaria, Varna.

Soleimani. M., and Piruz. I., (2007) A synthetic seismic reflection data processed with new method, Common Reflection Surface (CRS) stack. 7th International Scientific Conference of SGEM, Bulgaria, Varna.

Soleimani., M.* and Piruz. I., (2007) Does tomographic inversion method gives an accurate smooth velocity model? The 2nd International Scientific Conference of Young Scientists and Students, New Direction of Investigations in Earth Science, Azerbaijan, Baku.

Soleimani, M.* and Piruz. I., (2007) Could we make a better resolution in zero offset section by CRS stack method, a synthetic data example. The 2nd International Scientific Conference of Young Scientists and Students, New Direction of Investigations in Earth Science, Azerbaijan, Baku.