

- Marine Geophysical experiments including High-resolution Multi-channel seismic and echosounder data (Institute of Geophysics \ Hamburg) took place in the Atlantic Ocean (Azoren Plateau, Cruise—M113) from 28th Dec. 2014 to 23rd Jan. 2015. <http://www.pangaea.de/PHP/CruiseReports.php?b=Meteor>
<http://www.lfd.uni-hamburg.de/meteor/wochenberichte/wochenberichte-meteor/m113-m116/meteor-expeditionsheft-113-116.pdf>
- Land Geophysical experiments including ground-penetrating radar, geoelectric, and high-resolution vibrator seismic (Institute of Geophysics\Hamburg) Master thesis data acquisition held in Copenhagen\Denmark May 2013.
- Marine Geophysical experiments including High-resolution Multi-channel seismic and echosounder data (Institute of Geophysics \ Hamburg) took place in the Caribbean Sea (Yucatan Throughflow, Cruise-94) March 2013.
https://getinfo.de/en/search/id/awi%3Adoi%7E10.2312%252Fcr_m94/
(Hübscher, C., D. Nürnberg, M. Al Hseinat, M. Alvarez García, Z. Erdem, N. Gehre, A. Jentzen, C. Kalvelage, C. Karas, B. Kimmel, T. Mildner, A. O. Ortiz, A. O. Parker, A. Petersen, A. Raeke, S. Reiche, M. Schmidt, B. Weiß, D. Wolf (2014) Yucatan Throughflow - Cruise No. M94 – March 12 – March 26, 2013 – Balboa (Panama) – Kingston (Jamaica). METEOR Berichte, M94, 32 pp., DFG-Senatskommission für Ozeanographie, DOI:10.2312/cr_m94)
- Land Geophysical experiments including ground-penetrating radar, geoelectric, and high-resolution vibrator seismic (Institute of Geophysics\University of Hamburg) Training field course held in Helgoland\Germany October 2011.
- Diving Course in Open Seas held at the Marine Science Station (MSS), Aqaba\ Jordan, May – June 2010.
- Basics of Disaster Risk Reduction, held through the Support to Building of National Capacities for Earthquake Risk Reduction at Aqaba Special Economic Zone Project, Organized by ASEZA, UNDP, and the Swiss Agency for Development and Cooperation SDC. Aqaba\Jordan, .20 - 21 June 2010.
- Basics of Geology and Natural Disasters, held through the Support to Building of National Capacities for Earthquake Risk Reduction at Aqaba Special Economic Zone Project, Organized by ASEZA, UNDP, and the Swiss Agency for Development and Cooperation SDC. Aqaba\Jordan,13 to 16 June 2010.
- The Means and Techniques of Risk Management at the Local Level, held through the Support to Building of National Capacities for Earthquake Risk Reduction at Aqaba Special Economic Zone Project, Organized by ASEZA, UNDP, and the Swiss Agency for Development and Cooperation SDC. Aqaba\Jordan, June 2010.
- Interpreting the results of seismic risk assessment, held through the Support to Building of National Capacities for Earthquake Risk Reduction at Aqaba Special Economic Zone Project, Organized by ASEZA, UNDP, and the Swiss Agency for Development and Cooperation SDC. Aqaba\ Jordan, June 2010.
- Advanced course in applied geophysics, including full training on geophysical software, i.e., Interpret VES, Refraction, and SRIM.
- An Introductory Course in Interactive Seismic Interpretation Using Kingdom Suite +, equivalent to 40 training hours, during the period 17 September 2008 – 28 December 2008.
- Cambridge International Diploma in IT Skills awarded by the University of Cambridge Local Examinations Syndicate under Candidate Number: JO08214154.

Projects and Publications

- Mahmoud Abbas, Zhongping Lai¹, John D. Jansen, Hua Tu, Mohammad Alqudah, Xiaolin Xu, Bety S. Al-Saqarat, **Mu'ayyad Al Hseinat**, Xianjiao Ou, Paul A. Carling, Michael D. Petraglia., **2023**. Human dispersals out of Africa via the Levant. *Science Advances*. (**Nature Index, Q1:IF: 14:98**).
- **Mu'ayyad Al Hseinat**, Malek Alzidaneen, Rasheed Jaradat, Abdulla Al-Rawabdeh, Christian Hübscher, **2023**. Tectono-stratigraphic framework and evolution of the northwestern Arabian plate, Central Jordan. *Tectonophysics*, 863c, 229993. (**Q1:IF: 2.9**). <https://doi.org/10.1016/j.tecto.2023.229993>
- Ikhlas Alhejoj, Tasneem H. Hiasat, Elias Salameh, Abdalla Abu Hamad, Mustafa Al Kuisi, **Mu'ayyad Al Hseinat**., **2023**. Use of the Aquatic Mayfly (Insecta: Ephemeroptera) as Environmental Bio-Indicator in Jordan. *International Journal of Design & Nature and Ecodynamics*. 18 (1), 133-139. (**Q3:IF:0.252**). <https://doi.org/10.18280/ijdne.180115>
- Abdulla M. Al-Rawabdeh, Khaled Hazaymeh, Sara Nusir, Rana Shdifat, **Mu'ayyad Al Hseinat**, **2021**. A GIS-EIP-based Model for Mechanic Industrial Zone Site Selection in Al-Mafraq City, Jordan. *Jordan Journal of Earth and Environmental Sciences (JJES)*, 12(1), 72-80.
- Ibraheem Hamdan, Abdulla Al-Rawabdeh, **Mu'ayyad Al Hseinat**, **2020**. Assessment of the Groundwater vulnerability for the Corridor wellfield using the modified DRASTIC model: A case study from the east of Jordan. *Open Journal of Geology*, 10(10), 991-1008. <https://doi.org/10.4236/ojg.2020.1010046>
- **Mu'ayyad Al Hseinat**, Abdulla M . Al-Rawabdeh, Malek Alzidaneen, Masdouq Al-Taj, Hind Ghanem, Abdullah Diabat, Ghaleb Jarrar, Mohammad Atallah, **2020**. New Insights for Understanding the Structural Deformation Style of the Strike-Slip Regime along the Wadi Shueib and Amman-Hallabat Structures in Jordan Based on Remote Sensing Data Analysis, *Jordan. Geosciences (MDPI)* 10(7), 253. <https://doi.org/10.3390/geosciences10070253>
- **Mu'ayyad Al Hseinat**, Mohammad Rasheed, Saber Al-Rousan, **2020**. Long-term quality record (1996-2018) of coastal sediments at the complex industrial site along the Jordanian coast of the Gulf of Aqaba. *Environmental Monitoring and Assessment*, 192(443), 1-10. <https://doi.org/10.1007/s10661-020-08390-3>
- Ghanem, H., McAleer, R.J., Jarrar, G.H., **Al Hseinat, M.**, Whitehouse M., **2020**. 40Ar/39Ar and U-Pb SIMS zircon ages of Ediacaran dikes from the Arabian-Nubian Shield of south Jordan. *Precambrian Research*, 343, 105714. <https://doi.org/10.1016/j.precamres.2020.105714>
- Khawar Ashfaq Ahmed, Sarfraz Khan, Mahmood Sultan, Umair Bin Nisar, Kalim Ullah, and **Mu'ayyad Al Hseinat**., **2019**. Precise seismic sub-structural model of Eocene Chorgali Limestone in Turkwal field, Central Potwar, Pakistan. *Acta Geologica Sinica-English Edition*, 93(6), 1711-1720. <https://doi.org/10.1111/1755-6724.13813>
- Hübscher, C., **Al Hseinat, M.**, Schneider, M., Betzler, C., **2019**. Evolution of Contourite Systems in the Late Cretaceous Chalk Sea Along the Tornquist Zone, *Sedimentology* 66(4), 1341-1360. <https://doi.org/10.1111/sed.12564>
- **Al Hseinat, M.**, Hübscher, C., **2017**. Late Cretaceous to recent tectonic evolution of the North German Basin and the transition zone to the Baltic Shield/southwest Baltic Sea. *Tectonophysics* 708, 28-55. <https://doi.org/10.1016/j.tecto.2017.04.021>
- **Al Hseinat, M.**, **2016**. A Seismic Reflection Study of the Late Cretaceous to Recent Structural Evolution of the North German Basin and the Transition Zone to the Baltic Shield (Southwest Baltic Sea). PhD thesis, Universität Hamburg, Faculty of Mathematics, Informatics and Natural Science, Department of Earth Sciences.

-
- **Al Hseinat, M.**, Hübscher, C., Lang, J., Lüdmann, T., Ott, I., Polom, U., 2016. Triassic to recent tectonic evolution of a crestal collapse graben above a salt-cored anticline in the Glückstadt Graben / North German Basin. *Tectonophysics* 680, 50-66. <http://www.sciencedirect.com/science/article/pii/S0040195116301251>
 - Hübscher, C., D. Nürnberg, **M. Al Hseinat**, M. Alvarez García, Z. Erdem, N. Gehre, A. Jentzen, C. Kalvelage, C. Karas, B. Kimmel, T. Mildner, A. O. Ortiz, A. O. Parker, A. Petersen, A. Raeke, S. Reiche, M. Schmidt, B. Weiß, D. Wolf (2014) Yucatan Throughflow - Cruise No. M94 – March 12 – March 26, 2013 – Balboa (Panama) – Kingston (Jamaica). METEOR Berichte, M94, 32 pp., DFG-Senatskommission für Ozeanographie, DOI:10.2312/cr_m94 https://getinfo.de/app/Yucatan-Throughflow-Cruise-No-M94-March-12-March/id/awi%3Adoi~10.2312%252Fcr_m94
 - **Al Hseinat, M.**, Hübscher, C., 2014. Ice-load induced tectonics controlled tunnel valley evolution - instances from the southwestern Baltic. *Quaternary Science Reviews* 97, 121-135. <http://www.sciencedirect.com/science/article/pii/S0277379114001863>
 - Project for Earthquakes Risk Assessment in Amman City; done by Department of Earth and Environmental Science/ Yarmouk University, Jordan; July 2008.
 - Project for Vulnerability Map of Yarmouk Basin Using GIS Programs; done by Department of Earth and Environmental Science/ Yarmouk University, Jordan; June 2007 to January 2008.

Conference Articles

-
- Ikhlas Alhejoj, **Mu'ayyad Al Hseinat.**, 2022. Mesoscopic structural elements in Jordan and their possible mechanisms of formation. DRT Catania, European DRT (Deformation mechanisms, Rheology and Tectonics) Society. Catania, Italy. <https://drt-society.org/conferences/catania-2021/>
 - Ghanem, H., Mcaleer, R.J., Jarrar, G.H., **Al Hseinat, M.**, Whitehouse, M., 2019. ⁴⁰Ar/³⁹Ar and U-Pb SIMS Zircon Ages of Ediacaran Dikes from the Arabian-Nubian Shield of South Jordan. Conference paper. Goldschmidt, Barcelona, August 2019. <https://goldschmidt.info/2019/program/programViewAuthor?authorId=2050092961>
 - **M. Al Hseinat**, C. Hübscher, 2017. Near Surface Tectonics in the Baltic Sea Sector of the North German Basin and the Tornquist Zone. *Geophysical Research Abstract*, Vol. 19, EGU-2017-4456, 2017, in Vienna, Austria. <http://meetingorganizer.copernicus.org/EGU2017/EGU2017-4456.pdf>
 - **M. Al Hseinat**, C. Hübscher, 2017. Near Surface Tectonics in the Baltic Sea Sector of the North German Basin and the Tornquist Zone. Conference paper at DGG77, Potsdam. http://dgg2017.dgg-tagung.de/fileadmin/dgg2017/images/schriftliche_Unterlagen/DGG2017_Tagungsband_web.pdf
 - **M. Al Hseinat**, C. Hübscher, H. Lykke-Andersen., 2016. Base Quaternary mapping and shallow faults within the southwestern Baltic Sea. Conference paper, Baltic 2016 – The 13th Colloquium on Baltic Sea Marine Geology, September 12 – 16, 2016, in Gdańsk, Poland. <http://konferencje.pgi.gov.pl/en/baltic-home.html>
 - M. Schneider., **M. Al Hseinat.**, C. Hübscher., 2015. Upper Cretaceous contourite along the Tornquist Zone. Conference poster at DGG75, Hannover.

- **M. Al Hseinat.**, Hübscher, C., 2015. Ice-load induced tectonics controlled tunnel valley evolution - instances from the southwestern Baltic. Conference paper at DGG75, Hannover.
- Lang, J., **M. Al Hseinat.**, Brandes, C., Hampel, A., Hübscher, C., Winsemann, J., 2015. Numerical simulation of ice-load induced salt movements. Conference paper, EGU2015, At Vienna, Austria, Volume: Vol. 17, EGU2015-1982, 2015. <http://meetingorganizer.copernicus.org/EGU2015/EGU2015-1714.pdf>
- **M. Al Hseinat.**, C. Hübscher ., J. Lang, I. Ott., U. Polom., C. Brandes., A. Hampel., J. Winsemann., 2015. Ice-load induced salt tectonics controlled crestal collapse graben evolution – Instances from the Southwestern Baltic Sea. Conference paper, GeoBerlin 2015, Henry Ford Bau of the FU Berlin; 10/2015. http://www.geoberlin2015.de/assets/detailed_conf_program_mon_tue_wed_2509.pdf
- **M. Al Hseinat.**, Hübscher, C., 2015. Ice-load induced tectonics controlled tunnel valley evolution - instances from the southwestern Baltic. Conference paper, GeoBerlin 2015, Henry Ford Bau of the FU Berlin; 10/2015. http://www.geoberlin2015.de/assets/detailed_conf_program_mon_tue_wed_2509.pdf
- J. Wagner, C. Hübscher, **M. Al Hseinat**, I. Ott., 2012. Post-glacial salt tectonics shaped the Present-day Bathymetry of the Southwestern Baltic. Conference poster at DGG72, Hamburg. [http://www.geophysics.zmaw.de/index.php?id=7&L=1&tx_sevenpack_pi1\[search\]\[rule\]=AND&tx_sevenpack_pi1\[search\]\[sep\]=space&tx_sevenpack_pi1\[author_letter\]=W&tx_sevenpack_pi1\[author\]=Wagner&tx_sevenpack_pi1\[show_abstracts\]=0&tx_sevenpack_pi1\[show_keywords\]=0&tx_sevenpack_pi1\[year\]=all&cHash=5a305f1a76b1ee6ab3bf0208f92cd1e8](http://www.geophysics.zmaw.de/index.php?id=7&L=1&tx_sevenpack_pi1[search][rule]=AND&tx_sevenpack_pi1[search][sep]=space&tx_sevenpack_pi1[author_letter]=W&tx_sevenpack_pi1[author]=Wagner&tx_sevenpack_pi1[show_abstracts]=0&tx_sevenpack_pi1[show_keywords]=0&tx_sevenpack_pi1[year]=all&cHash=5a305f1a76b1ee6ab3bf0208f92cd1e8)

Scholarships & Awards

- Scholarship to finish PhD studies in Germany from University of Jordan, 10.1. 2011-31.12.2014.
- Student Award for Academic Excellence, Yarmouk University, Irbid – Jordan, May 2009.
- Student Award for Academic Excellence, Al al-Bayt University, Mafraq – Jordan, May 2005.

Supervising M.Sc. Thesis

- Al Awabdah, Asayal, 2024. Earthquake Risk Assessment for At-Tafilah Area using Analytical Hierarchy Process (AHP) and Artificial Neural Network (ANN). Master thesis, University of University.
- AL-Najjar, Omar, 2023. Investigating fault tectonic activity along the northwestern segment of the Wadi Sirhan fault system, North Jordan. Master thesis, Yarmouk University.
- **Albaker, Saja, 2022.** Examining the Tectonic Activity Along the Wadi Shueib and Amman-Hallabat faults Using Earthquakes and Remote Sensing Dataset. Master thesis, University of University.
- **Eljurf, Samer, 2021.** Assessment of the Petroleum System within the south-eastern part of Al-Sirhan Basin through 2D Seismic and Wireline Logging Data Interpretation. MSc. The University of Jordan. Master thesis, University of University.
- **Qutishat, Tala, 2021.** Active Tectonic Movement of the Dead Sea Transform Fault Induced Soft-sediment Deformation: Instances from the Quaternary Deposits at Wadi Al-Kharazeh. Master thesis, University of University.
- **AlZidaneen, Malek, 2020.** Investigation of the Structural Evolution of Central Jordan based on Integration of Reflection Seismic and Remote Sensing Techniques. Master thesis, University of University.

References

Prof. Dr. Ghaleb Jarrar, Professor of Petrology, Department of Geology, The University of Jordan

<https://orcid.org/0000-0003-3269-1144>

Mu'ayyad Al Hseinat

School of Sciences, Department of Geology
University of Jordan

m.hseinat@ju.edu.jo

Amman, 11940 Amman, Jordan.

Office phone: +962-6-5355000, Ex: 22266

Fax number: +962-6-5348932

Email Address: jarrargh@ju.edu.jo

Prof. Dr. Christian Hübscher, Professor of Geophysics, Institute of Geophysics, University of Hamburg-Germany

Bundesstrasse 55, 20146 Hamburg, Germany

Office phone: +49-40-428385184

Email Address: christian.huebscher@uni-hamburg.de