

LEV EPPELBAUM

SHORT INFORMATION ABOUT THE CANDIDATE

Lev Eppelbaum received the M. Sc in Geophysics (1982) at the Oil and Gas University in Baku (Azerbaijan) and Ph.D. (1989) at the Institute of Geophysics of the Georgian Academy of Sciences in Tbilisi. From 1982 to 1990 he worked as a Researcher and Senior Researcher at the Institute of Applied Geophysics in Baku. During 1991-1993 he had Postdoctoral Studies at the Department of Geophysics and Planetary Sciences, Tel Aviv University and in 1993-1994 he worked at this Dept. as Researcher. In 1995 he received a position of Senior Researcher and in 1998 - Senior Researcher/Lecturer. At present, he works at the Dept. as Principal Researcher (Assoc. Professor). He is author of more than **350** publications, including **9** books and about **145** articles.

He gives three courses of lectures at Tel Aviv University. His main interests are the processing and interpretation of geophysical fields under complicated environments as well as integrated interpretation of geophysical, geological, archaeological and environmental data. Eppelbaum's developments in these fields were linked to a unified nonconventional interpreting system.

He consults several environmental and archaeological organizations in Israel and abroad. Lev's exceptional interest lies in archaeological geophysics, where he proposed to create a specialized Multidisciplinary Center of Geophysical Studies and Applied Sciences Related to Archaeology. He is member of the Society of Exploration Geophysicists (USA), American Geophysical Union, European Association of Exploration Geophysicists, EuroScience, International Society for Archaeological Prospection, International Association for Promoting Geoethics, EARSel SIG (remote sensing and archaeology), International Astronomical Union, Society of Mediterranean Geologists and Geophysicists, Israel Geological Society and Prehistoric Society of Israel. Lev Eppelbaum received about **51** scientific grants (8 in the former Soviet Union, 36 – in Israel and 7 – from the International Community). He was a head of Israeli group in the recent FP7 “Integrated System for Transport Infrastructures surveillance and Monitoring by Electromagnetic Sensing” (2009-2012) and USA-Israel-Jordan “Integrated Geological-Geophysical Investigation of Karst Phenomenon in the Dead Sea Area” (2009-2013) projects.

Lev Eppelbaum was elected as chairperson, convener and co-convener at **18** International Scientific Conferences. He has been reviewing papers from **46** International Journals.

Prof. Eppelbaum is Assoc. Editor in “Geophysical Instrumentation, Methods and Data Systems”, *member of Editorial Board* of “Positioning”, “Stratigraphy and Sedimentology”, “LATINMAG Letters”, “International Jour. of Earthquake Engineering”, “Proceed. of the Azerbaijanian Acad. of Sci.”, “Structural Monitoring & Maintenance”, “International Jour. of Structural Analysis & Design”, “Archaeological Discovery”, “International Jour. of Earthquake Engineering”, “The Open Mineral Processing Jour.”, “The Open Petroleum Engineering Jour.” and *Guest Editor* of the “Advances in GeoSciences” and “Jour. of Geophysics and Engineering.

Lev Eppelbaum is a member of the WebmedCentral Ecology Advisory Board. Prof. Eppelbaum is a member of the International Scientific Commission “Rotation of the Earth” and Israeli Commission on Examination of PhD Theses.

He collaborates in different fields of geophysics, geology and environment with American, Azerbaijan, Canadian, Cyprian, French, Georgian, German, Greek, Italian, Jordanian, Mexican, Norwegian, and Russian scientists. He is Foreign Member of the Russian Academy of Natural Sciences (RANS). In July 2017 he received a medal "Knight of the Science and Arts" of the RANS.

Lev Eppelbaum is a chess master and he was champion and vice-champion of Baku (1982-1983). Now he plays in the chess team of the Tel Aviv University.

His homepage is located at the TAU site www.tau.ac.il/~levap.

List of most significant publications

Books:

Khesin, B.E., Alexeyev, V.V. and **Eppelbaum, L.V.**, 1996. Interpretation of Geophysical Fields in Complicated Environments. *Kluwer Academic Publishers (Springer)*, *Ser.: Modern Approaches in Geophysics*, Boston - Dordrecht - London, 368 p.

Eppelbaum, L.V. and Khesin, B.E., 2012. Geophysical Studies in the Caucasus. *Springer*, Heidelberg – N.Y., 411 p.

Eppelbaum, L.V., Kutasov, I.M. and Pilchin, A.N., 2014. Applied Geothermics. *Springer*, Heidelberg – N.Y., 827 p.

Kutasov, I.M. and **Eppelbaum, L.V.**, 2015. Pressure and Temperature Well Testing. *CRC Press (Taylor and Francis Inc)*, N.Y., 325 p.

Alizadeh, A.M., Guliyev, I.S., Kadirov, F.A., and **Eppelbaum, L.V.**, 2016. Geosciences in Azerbaijan. Vols. **I & II**. *Springer*, Heidelberg – N.Y., 239 p., 335 p.

Articles:

Eppelbaum, L.V. Khesin, B.E. and Itkis, S.E., 2001. Prompt magnetic investigations of archaeological remains in areas of infrastructure development: Israeli experience. *Archaeol. Prospection*, **8**, No.3, 163-185.

Eppelbaum, L., Eppelbaum, V. and Ben-Avraham, Z., 2003. Formalization and estimation of integrated geological investigations: Informational Approach. *Geoinformatics*, **14**, No.3, 233-240.

Eppelbaum, L., Ben-Avraham, Z. and Katz, Y., 2004. Integrated analysis of magnetic, paleomagnetic and K-Ar data in a tectonic complex region: an example from the Sea of Galilee. *Geophysical Research Letters*, **31**, No. 19, L19602.

Eppelbaum, L.V., Kutasov, I.M. and Barak, G., 2006. Ground surface temperature histories inferred from 15 boreholes temperature profiles: Comparison of two approaches. *Earth Sci. Res. Jour.*, **10**, No. 1, 25-34.

Eppelbaum, L.V., 2009. Near-surface temperature survey: An independent tool for buried archaeological targets delineation. *Jour. of Cultural Heritage*, **12**, Suppl.1, e93-e103.

Eppelbaum, L.V. and Mishne, A.R., 2011. Unmanned Airborne Magnetic and VLF investigations: Effective Geophysical Methodology of the Near Future. *Positioning*, **2**, No. 3, 112-133.

Eppelbaum, L.V., 2013. Non-stochastic long-term prediction model for US tornado level. *Natural Hazards*, **69**, No. 3, 2269-2278.

Al-Zoubi, A., **Eppelbaum, L.**, Abueladas, A., Ezersky, M. and Akkawi, E., 2013. Methods for removing regional trends in microgravity under complex environments: testing on 3D model examples and investigation in the Dead Sea coast. *International Jour. of Geophysics*, Vol. 2013, Article ID 341797, 1-13.

Eppelbaum, L.V. and Kutasov, I.M., 2013. Cylindrical probe with a variable heat flow rate: A new method for determination of the formation thermal conductivity. *Central European Jour. of Geosciences*, **5**, No. 4, 570-575.

Eppelbaum, L.V., 2014. Four Color Theorem and Applied Geophysics. *Applied Mathematics*, **5**, 358-366.

Eppelbaum, L.V., 2014. Geophysical observations at archaeological sites: Estimating informational content. *Archaeological Prospection*, **21**, No. 2, 25-38.

Eppelbaum, L.V., Nikolaev, A.V. and Katz, Y.I., 2014. Space location of the Kiama paleomagnetic hyperzone of inverse polarity in the crust of the eastern Mediterranean. *Doklady Earth Sciences (Springer)*, **457**, No. 6, 710-714.

Eppelbaum, L.V., 2015. Quantitative interpretation of magnetic anomalies from thick bed, horizontal plate and intermediate models under complex physical-geological environments in archaeological prospection. *Archaeological Prospection*, **23**, No. 2, 255-268.

Eppelbaum, L., Katz, Yu., Klokochnik, J., Kosteletsky, J., Zheludev, V. and Ben-Avraham, Z., 2018. Tectonic Insights into the Arabian-African Region inferred from a Comprehensive Examination of Satellite Gravity Big Data. *Planetary and Global Changes*, **159**, 1-23.