



Re-Mi Hage, Ph.D.

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Biography

Dr. Re-Mi Hage is an accomplished expert in Applied Mathematics and Actuarial Sciences, holding a Ph.D. from Université de Nantes and a Master's degree from Lebanese University Faculty of Sciences in association with "Université de Bretagne Occidentale" (Brest - France). She also possesses a Teaching Diploma in Statistics. Since October 2012, she has served as an Assistant Professor in the Actuarial program at the Faculty of Natural and Applied Sciences, and was then promoted to the rank of Associate Professor in 2020. With over a decade of experience, her expertise spans Modeling, Estimation, Prediction, Analysis, Econometrics, and Computational Statistics. Dr. Hage's research interests cover areas like Nonparametric estimation, Statistical Learning, Statistical Inference, Computational Statistics, Optimization, and Machine Learning, including deep learning. Her knowledge and dedication make her a valuable asset in academia and the professional world, contributing to diverse fields such as engineering, finance, biology, health, medicine, and actuarial science.

Peer-reviewed Journals

- Hrair Danageuzian, Ré-Mi S. Hage, "Operational Risk Modeling under the Loss Distribution Approach: Estimation of Operational Risk Capital by Business Line vs. Risk Category". Journal of Operational Research, 2024.
- CY Seif, IS Hage, RMS Hage, RF Hamade. "Exploiting the drill cutting lip to quantify the contributions of process parameters to cutting pressures-a response surface analysis". International Journal of Manufacturing Research 17 (1), 95-125, 2022.
- I. S. Hage, R. S. Hage, R. A. Yassine, C. Y. Seif, R. F. Hamade². "Mapping cortical bone stiffness and mineralization from endosteal to periosteal surface of bovine mid-diaphyseal femur". Journal of Bone and Mineral Metabolism, 2021.
- Charbel Y Seif, Ilige S Hage, Ré-Mi S. Hage, Ramsey Hamade. "Exploiting The Drill Cutting Lip to Quantify the Contributions of Process Parameters To Cutting Pressures - A Response Surface Analysis". Accepted for publication in Int. J. of Manufacturing Research, 2020.
- Ré-Mi S. Hage and Sarah Mghames, "Modelling and Estimating Interest Rate: A Comparative Study of ARIMA, and ARIMA Kalman Model", European Journal of Scientific Research ISSN 1450-216X / 1450-202X Vol. 155 No 4 March, 2020, pp.440 – 454.
- Chady Ghnatios, Re-Mi S. Hage, Ilige Hage, "An efficient Tabu-search optimized regression for data-driven buckling load modeling of composite panels", Comptes Rendus Mécanique, 2019.
- John N Haddad, Ziad S. Rached, Amer F. Jajou, Ré-Mi S. Hage, "On multiple regression diagnostics", Applied Mathematical Sciences, Vol. 13, 2019, no. 9, 415-421 <https://doi.org/10.12988/ams.2019.9348>.
- Ré-Mi S. Hage, I. Hage, C. Ghnatios, I. S. Jawahir, R. Hamade, "Optimized tabu search estimation of wear characteristics and cutting forces in compact core drilling of basalt rock using PCD tool inserts" Computers & Industrial Engineering CAIE-D-18-01460R1.

- Esther Ghanem and Ré-Mi S. Hage, "Behavior of Lung Health Parameters among Smokers and Secondhand Smokers," *Journal of Environmental and Public Health*, Volume 2018, Article ID 5217675, <https://doi.org/10.1155/2018/5217675>, 2018.
- El-Rayess Maroun, Chebl Charla, Mhanna Joseph & Ré-Mi S. Hage. "Fake news judgement: The case of undergraduate students at Notre Dame University-Louaize, Lebanon," *Reference Services Review*, Emerald Publishing, DOI 10.1108/RSR-07-2017-0027. 10.1108/RSR-07-2017-0027, 2018.

Peer-reviewed Conference Proceedings

- C. Seif, I. Hage, Ré-Mi S. Hage, R.Hamade. "Statistical Analysis of Strain Rate Dependency of the Mechanical Properties of Unidirectional CFRE Materials," ASME 2023 International Mechanical Engineering Congress and Exposition.
- I. Hage, C. Seif, Ré-Mi S. Hage, R.Hamade "Statistical Analysis of Strain Rate Dependency of the Mechanical Properties of Unidirectional CFRE Materials," ASME 2022 International Mechanical Engineering Congress and Exposition.
- Perla C. Sammour, Ilige S. Hage, Chady Ghnatios, Najib Metni, Ré-Mi S. Hage, R. Hamade "Lower limb joint reaction forces and moments calculations for a "dabke jump": application of 3d inverse dynamics technique," ASME 2021 International Mechanical Engineering Congress and Exposition.
- I. Hage, C. Seif, Ré-Mi S. Hage, R.Hamade "Statistical Analysis of Strain Rate Dependency of the Mechanical Properties of Unidirectional CFRE Materials," ASME 2021 International Mechanical Engineering Congress and Exposition.
- I. Hage, Ré-Mi S. Hage, C. Ghnatios, A. Baydoun, R. Hamade, "An optimized statistical model for predicting composite' modulus of elasticity," ASME 2020 International Mechanical Engineering Congress and Exposition, Paper Number: IMECE2020-24560.
- Ré-Mi S. Hage, I. Hage, C. Ghnatios, R. Hamade, "Statistically Validated and Optimized Tabu Search Estimation of Cutting Tool Life in Turning," ASME 2018 International Mechanical Engineering Congress and Exposition, V002T02A038-V002T02A038.
- I. Hage, C. Seif, Ré-Mi S. Hage, R.Hamade "A Verified Non-Linear Regression Model for Elastic Stiffness Estimates of Finite Composite Domains Considering Combined Effects of Volume Fractions, Shapes, Orientations," ASME 2018 International Mechanical Engineering Congress and Exposition, V009T12A022-V009T12A022.
- I. Hage, Ré-Mi S. Hage, C. Seif, R. Hamade "Relating Bone Intra-Cortical Elastic Stiffness to EDX Spectroscopy Mineralization Measurements," ASME 2018 International Mechanical Engineering Congress and Exposition, V003T04A028-V003T04A028.
- Ré-Mi S. Hage, D. Betaille, F. Peyret, and D. Meizel-Unscented, "Kalman filter for urban network travel time estimation with mid-link sinks and sources," 15th international conference on intelligent transportation systems, Hilton, Anchorage, Ak, Usa 16 sep-19sep 2012.
- Ré-Mi S. Hage, David Betaille, Francois Peyret, and Dominique Meizel, "Unscented Kalman filter for urban network travel time estimation," *Procedia-Social and behavioral Sciences* 54 (2012) 1047-1057.
- Ré-Mi S. Hage, Betaille David, Le Carpentier Eric, Peyret Francois, and Meizel Dominique, "Link travel estimation in urban areas by detectors and probe vehicles fusion," 2nd International Conference on Models and technologies for intelligent transportations systems 22-24 june, 2011 Leuven, Belgium.

International conference without proceedings

- Liana O. Barsoumian, Ré-Mi S. Hage, "Prediction of Health Care Insurance Expenses using Machine Learning and Artificial Neural Network," EAA e-conference on Data sciences & data Ethics on 14 May 2024 organized by the European Actuarial Academy
- Marianne Hanna , Ré-Mi S. Hage, "Bitcoin estimation and prediction through neural network and machine learning," *Mathmeth*, Paris (France), 2022.
- Ré-Mi S. Hage, I. Hage, C. Ghnatios, R. Hamade, "Advanced tool-life estimation using Tabu search," The second international workshop on databased engineering, science and technology, DATA-BEST 2019, Paris (France), 2019.

Seminars

- Ré-Mi S. Hage, David Betaille, François Peyret, Dominique Meizel Estimation du temps de parcours par fusion des données de boucles et véhicules traceurs Séminaire de clôture de l'opération SERRES, Action 1 – Métrologie du trafic, 20 mai 2014, Paris-La Défense.

- Ré-Mi S. Hage, David Betaille, François Peyret, Thèse Ré-Mi Hage Temps de parcours en ville par fusion de données de boucles magnétiques et de véhicules traceurs : une approche stochastique avec mise en œuvre d'un filtre de Kalman sans parfum Séminaire de l'opération SERRES, mars 2013.

Specialized Reports

International

- Security and Stabilization Program for the assessment and enhancement of the Traffic Management Center- Beirut- Lebanon 2013-2015.

Esteemed Indicators

Reviewer for the journals

- Heliyon, publisher.
- Journal of Mathematics and Statistics.
- Social Network Analysis and Mining