Andrés García Medina, PhD
CONACyT Research Fellow at
Centro de Investigación en Matemáticas, A.C.

Alianza Centro 502, Parque de Investigación e Innovación Tecnología (PIIT)
Apodaca, Nuevo León, México, CP. 66629
Tel. +52 (81) 21872056
email: andres.garcia@cimat.mx

Education

Ph D (Physics), Universidad de Sonora, México, December 2016.
Thesis: Methods of statistical physics in behavioral economics.

M. S. (Physics), Universidad Nacional Autónoma de México, México, December 2011.
Thesis: Fidelity decay on isospectral perturbations

B. Sc. (Physics), Universidad Autónoma de Baja California, México, January 2009.

Publications

- Transfer entropy as a variable selection methodology of cryptocurrencies in the framework of a high dimensional predictive model. **Andrés García-Medina*** , Graciela González-Farías. PLOS ONE, (**2020**) (DOI:10.1371/journal.pone.0227269).
- Correlations and flow of information between The New York Times and Stock Markets. ***Andrés García-Medina****, *Leonidas Sandoval Junior, Efraín Urrutia Bañuelos y A. M. Martínez-Argüello.* Physica A. 502 (**2018**) 403.
- El uso de twitter en el análisis financiero: aproximación desde la econofísica. ***A. García****, *Editor Ricardo Mansilla,* INTERdisciplina vol. 5-12, pag. 23, Editorial UNAM (**2017**). *(*DOI: 10.22201/ceiich.24485705e.2017.12.61469)
- Global financial indices and twitter sentiment: a random matrix theory approach. ***A. García*.*** Physica A. 461 (**2016**) 509.
- Wavelet transform electrochemical noise analysis for intermetallic coatings at 750 °C in molten salt environment. ***A. García****, E.F. Díaz, S. Serna, J. Colín, A. Torres-Islas y M. A. Lucio-García.* EUROCORR PROCEEDINGS (**2014**) - European Corrosion Congress.
- Fidelity under isospectral perturbations: a random matrix study. *F. Leyvraz*,* ***A. García****, H. Kohler y T. H. Seligman***.** J. Phys. A: Math. Theor. 46 (**2013**) 275303.

Relevant Talks

- Speaker in "Workshop on Economic Science with Heterogeneous Interacting Agents" City, University of London, United Kingdom June 21-26 2019.
- Guest speaker in "*Workshop on Econometrics and Data Science (WEDS)"*, Monterrey, México. November 8-9 2018.
- Speaker in *"Econophysics Colloquium 2018"* Dipartimento di Fisica e Chimica dell'Università degli Studi di, Palermo, Italy. September 11-14 2018.

- Guest speaker in *“VI Leopoldo García-Collin Mexican Meeting on Mathematical and Experimental Physics”*. El colegio nacional, Mexico City, Mexico. September 5-9 of 2016.
- Speaker in *“Econophysics Colloquium 2016”*. International Centre for Theoretical Physics, Sao Paulo, Brazil. Juy 27-29 of 2016.
- Speaker in *“Econophysics Colloquium 2015”*. Institute of Economics Studies, Faculty of Social Sciences, Charles University in Prague, Czech Republic. September 14-17 of 2015.

Relevant Experience

- Professor at *Instituto Tecnológico de Estudios Superiores de Monterrey* (ITESM), Tampico - México (2017).
- Visiting scholar at *Insper Institute of education and research on business business, economics and engineering* , Sao Paulo, Brazil, (2016).
- Stay research at *Center for Interdisciplinary Research in Science and Humanities (CEEIICH), UNAM*, Mexico City, Mexico, (2016).
- Private funding research (*OLEUM Trading systems – Singapore*) headed by Dr Abraham Jalbout at Hermosillo, Mexico (2012).

Teaching

- Selected Topics on Statistics: Random Matrix Theory (Postgraduate course – 2019)
- Multivariate Statistics (Postgraduate course – 2019)
- Selected Topics on Econometrics and Finance: Random Matrix Theory (Postgraduate course – 2018)
- Scientific Visualization: Topics on Multivariate Statistics and Random Matrices (Postgraduate course - 2018).
- Physics I, Physics II, Dynamics (Undergraduate course - 2017).
- Linear Algebra I, Calculus I, Numerical Analysis I (Undergraduate course - 2017).
- Mathematical Physics (Undergraduate course - 2014).
- Integral Transforms (Undergraduate course - 2013).

Academic Distinctions

- Mexican System of Researchers (Level C, 2018 – 2020).
- Honors in PhD dissertation (December 2016).
- Funding award from National Council of Science and Technology of Mexico (CONACyT) through FOSEC SEP-INVESTIGACIÓN BÁSICA A1-S-43514 to develop the project: Modeling in Finance and Econometrics from the paradigm of Econophysics (2019-2021).