

**GERARDO HERNÁNDEZ DEL VALLE**

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**EXPERIENCIA**

Economista Sénior, CEMLA	2022-Presente
Director de Asset Management, Actinver	2017–2022
Investigador, Banco de México	2013–2017
Investigador Invitado, ABACUS-CINVESTAV	2012–2013
Professor Asistente, Columbia University, Stat. Dept.	2007–2012
Posición Postdoctoral, Columbia University, Stat. Dept.	2005–2007

**CERTIFICACIONES**

Figura 3 – Asesor en Estrategias de Investigación, AMIB	2017
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**EDUCACIÓN**

Ph.D. Probability and Statistics, Columbia University in the City of New York, USA	2005
M.Sc. Probability and Statistics, Columbia University in the City of New York, USA	2002
M.A. Probability and Statistics, Columbia University in the City of New York, USA	2000
Ingeniería Eléctrica, Universidad del Tepeyac, Ciudad de México	1998

**PUBLICACIONES**

**Revistas arbitradas**

- “Do heterogeneous countries respond differently to oil price shocks?” (con S. Guerrero and M. Hernández-Vega). *Journal of Commodity Markets*, 16, 1-22, 2019.
- “A Hybrid Metaheuristic for the Efficient Solution of GARCH with Trend Models” (con O. Schuetze and L. Uribe-Richaud). *Computational Economics*, 52(1), 145-166, 2018.
- “On the zeros of the Pearcey integral and a Rayleigh-type equation”. *Bol. Soc. Mat. Mex*, 24(1), 203-217, 2018.
- “Using a functional approach to test trending volatility in the price of Mexican and international agricultural products” (con S. Guerrero and M. Juárez). *Agricultural Economics*, 48, 1–13, 2017.
- “Hitting times of a Bessel bridge” (con C. Pacheco-González). *Comm. Stoch. Anal.*, 9(1), 79-92, 2015.
- “On hitting times, Bessel bridges, and Schrodinger’s equation”. *Bernoulli*, 19(5a), 1559-1575, 2013.
- “On the density of the first time that a 3-D Bessel bridge hits a boundary”. *Stoch. Models*, 28(4), 649-662, 2012.
- “Optimal execution of derivatives, a Taylor expansion approach” (con Y. Sun), *Stochastic Systems: Optimization, Control, and Applications*, 157-163, 2012.
- “On changes of measure and representations of the first hitting time of a Bessel process”. *Comm. Stoch. Anal.*, 5(4), 701-719, 2011.
- “A note on distributional equations in discounted risk processes” (con C. Pacheco-González). *Morfismos*, 14(2), 1-15, 2010.
- “An integral equation for the distribution of the first exit time of a reflected Brownian motion” (con V. De-La-Peña and C. Pacheco-González). *ANZIAM J.*, 50(4), 2009.

“A comparison of 2-CUSUM stopping rules for quickest detection of two-sided alternatives through the derivation of the mean of a general 2-CUSUM” (con O. Hadjiliadis and I. Stamos). *J. of Sequential Analysis*, 28(1), 92-114, 2009.

“Some observations of atmospheric luminosity as a possible earthquake precursor” (con M. Araiza-Quijano). *Geofísica Internacional*, 4, 403-408, 1996.

#### **Documentos de Trabajo**

“On a new class of barrier options”, *Banco de México Working Papers*, No. 2014-23, 2014.

“Valuation of credit default swaps via Bessel bridges” (with C. Pacheco-González), *Banco de México Working Papers*, No. 2014-27, 2014.

“On the pricing of defaultable bonds and Hitting times of Ito processes”, *Banco de México Working Papers*, No. 2015-21, 2015.

“A functional approach to test trending volatility” (with S. Guerrero and M. Juárez-Torres), *Banco de México Working Papers*, No. 2016-03, 2016.

“Do heterogeneous countries respond differently to oil price shocks?” (with S. Guerrero and M. Hernández-Vega), *Banco de México Working Papers*, No. 2018-09, 2018.