

# Irma Hernández-Magallanes

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## EDUCATION

- University of California, Berkeley** **Dec 2010**  
Ph.D., Statistics
- Integrating grouped and ungrouped data: the point process case**  
Ph.D. Advisor, David R. Brillinger
- University of Waterloo, ON., Canada** **Oct 2002**  
MMath., Actuarial Science
- Instituto Tecnológico Autónomo de México (ITAM), Mexico City** **Jun 2001**  
BA., Actuarial Science
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## AWARDS, FELLOWSHIPS AND GRANTS

- **ASA Section on Business and Economic Statistics Student Travel Award** **2009**  
Awarded to present a paper at the Joint Statistical Meeting (JSM), Washington DC.
  - **Outstanding Graduate Student Instructor (GSI) Award** **2008**  
Campus-wide award by the UC Berkeley's Teaching Center.  
Less than 5% of the GSI's receive such an award.
  - **CONACyT and UC Mexus Doctoral Fellowship** **2005-2010**  
Awarded by Consejo Nacional de Ciencia y Tecnología (CONACyT), and University of California Institute for Mexico and the United States (UC Mexus).
  - **CONACyT Scholarship** **2001-2002**  
Awarded by Consejo Nacional de Ciencia y Tecnología (CONACyT), to pursue the Master program at the University of Waterloo, ON, Canada
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## TEACHING EXPERIENCE

- Graduate Student Instructor (a.k.a. Teaching Assistant)** **Jan 2009 - May 2009**  
Statistics Department, University of California, Berkeley, CA, USA.  
– *Graduate course - Statistics 248* Random process data analysis.
- Graduate Student Instructor** **Aug 2008 - Dec 2008**  
Statistics Department, University of California, Berkeley, CA, USA.  
– *Undergraduate upper division course - Statistics 153* Introduction to Time Series.  
– Outstanding graduate teaching assistant award recipient.

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## RESEARCH EXPERIENCE

### Graduate Student Researcher (GSR)

Aug 2006 - Dec 2010

University of California, Berkeley

- Professor David R. Brillinger.
- Modeling of volatility.
- Random process data modeling and data analysis with differing levels of aggregation.

### Visiting Scholar

Jul 2008 - Aug 2008

Technische Universität Darmstadt, Darmstadt, Germany.

- Professor Armin Fügenschuh.
- Metals classification through the use of multiple response regression methods that consider the correlations existing among the measurements on metals.

### Banco de México Researcher

May 2003 - Jul 2005

Currency Issuance Division, Mexico City.

- Time series forecasting of the demand for bank notes and coins.
- Optimization of the distribution system of bank notes and coins.
- Design of opinion surveys.

### Graduate Research Assistant

May 2002 - Oct 2002

University of Waterloo, ON. Canada

- Professor Steve Drekic.
- Numerical approximations to the distribution of the time to ruin in the classical risk model.

### Undergraduate Research Assistant

Aug 2000 - Jun 2001

Instituto Tecnológico Autónomo de México (ITAM), Mexico City

- Professor Tapen Sinha
- Economic Crises and Health Risk: Evidence from Mexico.

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## PUBLICATIONS

### *Conference presentations and proceedings*

- “Detecting Seasonal Volatility: A Banking Application”, JSM, Washington, D.C., Aug 2009. ASA Section on Business and Economic Statistics.
- “Das ANSLC-Programm und das SDM im Vergleich”, Dsoki Chalid El, Fügenschuh Armin, Hanselka Holger, Hochbaum Dorit, Hernandez-Magallanes Irma, Moreno-Centeno Erick and Peter Andrea. Sonderforschungsbereich 666: Integrale Blechbauweisen höherer Verzweigungsordnung – Entwicklung, Fertigung, Bewertung, Editor Groche P., (2008), 97 - 106.
- “Economic Crises and Health Risk: Evidence from Mexico”, joint work with Prof. Tapen Sinha. American Risk and Insurance Association (ARIA) Annual Meeting, Indianapolis, Aug 2001.

## PUBLICATIONS (continue)

### *Theses*

- “Integrating grouped and ungrouped data: the point process case”. Ph.D. Thesis, University of California, Berkeley, 2010.
- “Numerical Approximations to the Distribution of the Time to Ruin in the Classical Risk Model”. Master Thesis, University of Waterloo, 2002.
- “Salud, economía y educación: el caso de México”. Undergraduate Thesis, ITAM, 2001.

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## PROFESSIONAL EXPERIENCE

### **Banco de México Researcher**

**May 2003 - Jul 2005**

Central Bank of Mexico, Currency Issuance Division, Mexico City.

- Time series forecasting of the demand for bank notes and coins.
- Optimization of the distribution system of bank notes and coins.
- Design of opinion surveys.

### **IBM Global Services Consultant**

**Mar 2001 - Jul 2001 & Oct 2002-Apr 2003**

IBM de México.

- Risk analysis of outsourcing clients.

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## INVITED SEMINARS

- “Stochastic processes: volatility and aggregation problems”, Stochastic Seminar, Statistics Department. Instituto Tecnológico Autónomo de México (ITAM), Mexico City, Dec 2009.
- “Detecting Seasonal Volatility: A Banking Application”, Statistics Seminar, Mathematics Department. Instituto Tecnológico de Estudios Superiores de Monterrey (ITESM), Monterrey Nuevo León, Sep 2009.
- “Seasonality and Volatility: Applications to Time Series and Point Processes”, Seminar in Optimization, Department of Mathematics, Optimization Research Group. Technische Universität Darmstadt, Darmstadt, July 2008.

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## COMPUTER PROFICIENCY

### **Programming languages**

Unix, R, Matlab, C.

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## REFERENCES

- **Professor David R. Brillinger**  
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University of California, Berkeley  
367 Evans Hall  
Berkeley, CA 94720-3860  
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## REFERENCES (continue)

– **Professor Deborah Nolan**

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University of California, Berkeley  
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– **Dr. Haiganoush K. Preisler**

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