

RISK 2018

7th Workshop on Risk Management and Insurance



Santander, April 25-27, 2018



Fundación
MAPFRE



RISK 2018

Santander, April 25-27, 2018.

University of Cantabria. Facultad de Ciencias Económicas y Empresariales.

Avda.de los Castros s/n, 39005, Santander, Cantabria, Spain.

Email (Local Organizing Committee): risk2018@unican.es

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RISK 2018

7th Workshop on Risk Management and Insurance

Dear colleague,

The **Department of Economics** of the **University of Cantabria**, in collaboration with the **Research Group on Risk in Insurance and Finance** of the **University of Barcelona**, is pleased to announce the 7th Workshop on Risk Management and Insurance Research (RISK, 2018), which will be held in Santander (Spain) from April 25 to April 27, 2018.

In line with previous conferences, RISK 2018 will provide a platform to share new ideas, research results and development experiences in actuarial science and finance. In this edition, **Prof. Dr. Enkelejd Hashorva (Université de Lausanne)** will be the keynote speaker of the inaugural session.

The RISK 2018 topics include, but are not limited to, the following ones:

- Theory, Models and Computational Methods for Risk Analysis
- Quantitative Risk Management
- Financial Modeling
- Uncertainty Modeling
- Environmental Risks
- Life Insurance, Non-Life Insurance, Reinsurance
- Actuarial Mathematics
- Actuarial and Financial Data Analysis
- Big Data technologies in the Insurance Industry.



Committees

Organizing Committee Chairs

Montserrat Guillén Estany, Universitat de Barcelona, Spain.
José María Sarabia Alegría, Universidad de Cantabria, Spain.

Local Organizing Committee

Vanesa Jordá Gil, Universidad de Cantabria, Spain.
Faustino Prieto Mendoza, Universidad de Cantabria, Spain.
Lorena Remuzgo Pérez, Universidad de Cantabria, Spain.
Carmen Trueba Salas, Universidad de Cantabria, Spain.

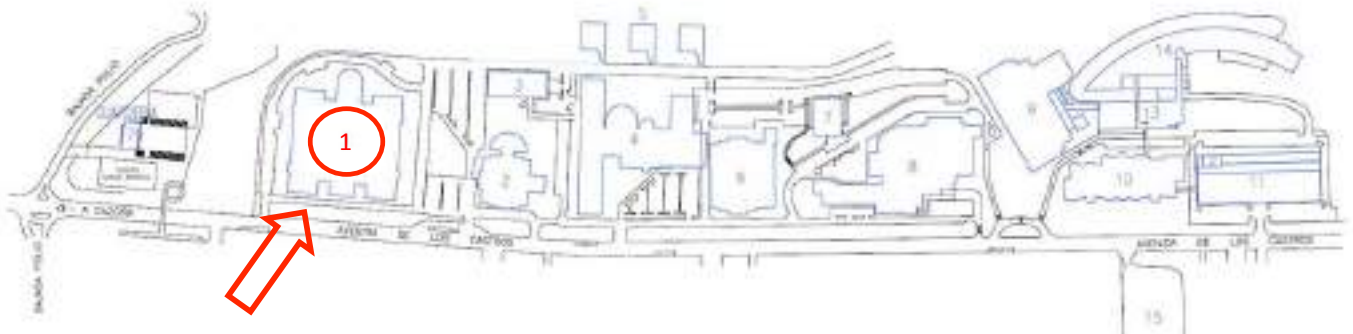
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Pilar Abad Romero, Universidad Rey Juan Carlos, Spain.
Alejandro Balbás de la Corte, Universidad Carlos III de Madrid, Spain.
Catalina Bolancé Losilla, Universitat de Barcelona, Spain.
Enrique Calderín Ojeda, University of Melbourne, Australia.
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Juan Manuel Rodríguez Poo, Universidad de Cantabria, Spain.
José María Sarabia Alegría, Universidad de Cantabria, Spain.
Miguel Angel Sordo Díaz, Universidad de Cádiz, Spain.
Francisco José Vázquez Polo, Universidad de Las Palmas de Gran Canaria, Spain.
José Luis Vilar Zanón, Universidad Complutense de Madrid, Spain.

Venue

The sessions of the RISK2018 International Workshop (April 25-27, 2018) will be held at the Facultad de Ciencias Económicas y Empresariales, University of Cantabria (UC), Spain. It is located at the Campus de las Llamas (Avda. de los Castros s/n), in the municipality of Santander.

Campus de las Llamas



1. Facultad de Derecho-Económicas
2. Pabellón de Gobierno
3. Filología (Servicio de Informática)
4. Interfacultativo
5. Tres Torres
6. Polideportivo
7. Instituto de Física
8. Facultad de Ciencias
9. I+D Ingeniería de Comunicaciones
10. Caminos (Aulas)
11. Caminos (Laboratorios) y CDTUC (Fase-B)
12. Torre-Nave Ensayos
13. CDTUC (Fase-A)
14. Ingenieros Industriales y Telecomunicaciones
15. C.M.

RISK 2018 Conference Timetable.

Wednesday, April 25	Thursday, April 26	Friday, April 27
	Registration 8:30-9:15	Registration 8:30-9:00
	Opening Session 9:15-9:30	Concurrent Sessions IV 9:00-10:30
	Plenary Talk 9:30-10:30	
	Coffee Break 10:30-11:00	Coffee Break 10:30-11:00
	Concurrent Sessions I 11:00-12:30	Concurrent Sessions V 11:00-12:15
	Concurrent Sessions II 12:30-14:00	Concurrent Sessions VI 12:15-13:30
	Lunch 14:00-15:15	Closing Session 13:30-14:00
	Concurrent Sessions III 15:15-16:30	Lunch 14:00-15:30
	Social Program 16:30-20:30	
Welcome Event 20:00-22:00	Gala Dinner 20:30-23:00	

RISK 2018. Conference Program

WEDNESDAY - APRIL 25th

Welcome Event

Hotel Santemar. C/ Joaquín Costa nº 28, Santander

20:00-22:00

THURSDAY- APRIL 26th



09:15 - 09:30

Opening session

Salón de Actos. Facultad de Ciencias Económicas y Empresariales
Universidad de Cantabria

Speakers

José María Sarabia, *University of Cantabria*

Montserrat Guillén, *University of Barcelona*

Begoña Torre Olmo, *Santander Financial Institute*

09:30 – 10:30

Plenary session – Salón de Actos**From Classical to Parisian Ruin in Gaussian Risk Models**

Prof. Enkelejd Hashorva

Full professor, Actuarial Department

HEC Lausanne**Prof. Enkelejd Hashorva**

Enkelejd Hashorva is Professor of Actuarial Mathematics at HEC Lausanne. He holds an M.Sc. in Pure Mathematics and a Ph.D. in Applied Probability from the University of Bern. Since 2003 he is Actuary SAV; in 2004 he became Privat Dozent for Applied Stochastic at the Institute of Mathematical Statistics and Actuarial Science of the University of Bern. In his 10 years actuarial career at Allianz Suisse Insurance Company, Enkelejd served as head of pricing non-life department from July 2005 until September 2010. His principal research interests include insurance mathematics with a focus on pricing, price optimization, customer future value, stochastic reserving, risk management and capital allocation, perturbed ruin models. Besides the insurance field, his active research spectrum includes topics from Gaussian processes and random fields, approximation theory of stochastic processes, extreme value theory and statistics, efficient rare-event simulation, multivariate distributions, stochastic geometry. Currently, Enkelejd runs several research projects supported by the Swiss National Science Foundation. He has published papers in relevant journals in probability, statistics, insurance and risk analysis. He is associate editor of several journals including: Journal of Applied Probability, Statistics & Probability Letters, Extremes and European Actuarial Journal among others.

Abstract: This talk is concerned with Gaussian risk models which approximate risk processes modelling insurance portfolios. Such probabilistic risk models become more realistic when various financial elements including inflation, deflation and taxation are taken into account. Risk measures of interest in our settings are the classical and Parisian ruin for both finite and infinite time-horizon. Despite the complicated expressions of those risks measures, their approximation for large values of initial capital can be obtained explicitly using probabilistic and asymptotic techniques.

Another quantity of interest in the Gaussian risk models is the ruin time, which for Gaussian risk models can be approximated by some exponential or Gaussian random variable, provided that the initial capital becomes large. The asymptotic findings in the Gaussian paradigm are useful in practice for instance as benchmark values, or for motivating various risk adjustments. Besides, our findings inspire some theoretical investigations for extremes of Gaussian random fields.

Joint work with Krzys Debicki, Vladimir Piterbarg, Lanpeng Ji

Coffee Break

10:30 - 11:00

11:00 - 12:30	Speaker	Title and authors
	T1A Non-life insurance – Room 22	Alemar Elaine Padilla <i>Universidad de Barcelona</i>
Ana María Pérez-Marín <i>Universidad de Barcelona</i>	Incorporating telematics information in motor insurance ratemaking: the role of mileage and driving habits. Ana María Pérez-Marín	
Manuela Alcañiz <i>Universitat de Barcelona</i>	Traffic intensity and estimation of the prevalence of alcohol-impaired drivers in random roadside surveys. Manuela Alcañiz Zanón	
Miguel Santolino <i>University of Barcelona</i>	Modelling motor temporary disability data with periodics peaks. Lluís Bermúdez, Dimitris Karlis, Miguel Santolino	
T1B Risk Assessment – Room 24	M. Mercè Claramunt <i>Universitat de Barcelona</i>	Macro-prudential risk management in insurance-reinsurance networks. Influence of market concentration. Anna Castañer, M. Mercè Claramunt, Claude Lefèvre, Stéphane Loisel
Enrique Jiménez-Rodríguez <i>Universidad Pablo de Olavide</i>	Testing the Sensitiveness of Operational Risk Capital Charges in the aftermath of the Financial Crisis. Enrique Jiménez-Rodríguez, José Manuel Fera-Domínguez and José Miguel Blanco-Gómez	
Carmen López <i>UNED</i>	Role of choice of threshold on the estimation of market risk under the POT method (EVT). Sonia Benito Muela, Carmen López-Martín, M ^a Ángeles Navarro	
Alejandro Balbás <i>University Carlos III</i>	Good deal indices in asset pricing: actuarial and financial implications. Alejandro Balbás, José Garrido, Ramin Okhrati	

12:30 – 14:00	Speaker	Title and authors
	<p>T1A Risk analysis – Room 22</p> <p>Isabel Serra <i>Centre Recerca Matemàtica</i></p> <p>Alfonso José Bello <i>Univesidad de Cádiz</i></p> <p>Delbaen Freddy <i>ETH Zurich and University of Zurich</i></p>	<p>Scale-free and location-free risk measures. C. Bolancé, A. Cabaña, A. Pitarque, I. Serra</p> <p>Consistencia de medidas de co-riesgo y medidas de contribución de riesgo con ordenaciones estocásticas. algunos ejemplos. Alfonso J. Bello, Miguel A. Sordo, Alfonso Suárez-Llorens</p> <p>Remark on Benefit Sharing. Freddy Delbaen, Delia Coculescu</p>
<p>T1B Enterprise risk management – Room 24</p> <p>Mara Madaleno <i>Universidade de Aveiro, DEGEIT, GOVCOPP</i></p> <p>Yolanda Pérez <i>Universidad Complutense de Madrid</i></p> <p>Ostaszewski Krzysztof <i>Illinois State University</i></p> <p>Maria Belda-Ruiz <i>University of Murcia</i></p>	<p>Financial and Non-Financial Risk: Family Firms and Non-Family Firms. Mara Madaleno</p> <p>Risk on financial reporting: insights from the research. Yolanda Pérez Pérez, Maria-del-Mar Camacho-Miñano, Maria Jesús Segovia Vargas</p> <p>I'm just an industry whose intentions are good. James Jones, Krzysztof Ostaszewski</p> <p>Co-movements between the british pound and euro: the brexit impact. Susana Alvarez-Diez, J. Samuel Baixauli-Soler, Maria Belda-Ruiz</p>	

Lunch

14:00 – 15:15

15:15– 16:30	Speaker	Title and authors	
	T1A Models for risk analysis I – Room 22		
	Catalina Bolancé <i>Universidad de Barcelona</i>	Estimación máximo verosímil condicionada del modelo lineal generalizado con función de ligadura no paramétrica. Catalina Bolancé, Ricardo Cao, Montserrat Guillén	
	Ainara Rodríguez <i>Universidad de Granada</i>	Camels model: detection and treatment of collinearity. A. Rodríguez Sánchez, C. García García, C.B García García, R. Salmerón Gómez	
Ramon Alemany <i>University of Barcelona</i>	Biased transformed kernel estimator of extreme quantiles . Catalina Bolancé, Ramon Alemany		
T1B Environmental and health risk – Room 24			
Claudia García <i>Universidad de Granada</i>	Environmental risk: energy efficiency in Spain. Claudia García García, Catalina B. García García, Ainara Rodríguez Sánchez, Román Salmerón Gómez		
Lorena Remuzgo <i>Universidad de Cantabria</i>	Environmental risk: clustering countries from a distributional perspective of the main pollutants. Carmen Trueba, Lorena Remuzgo		
Ana Debón <i>Universitat Politècnica de València (Spain)</i>	Indicadores de mortalidad para Colombia. Gisou Díaz, Ana Debón, Vicent Giner-Bosch		

Social Program

Guided visit to Comillas and Santillana del Mar. The departure will be at the Facultad de Ciencias Económicas y Empresariales (Universidad de Cantabria)

16:30 – 20:30

Gala Dinner

**Parador de Santillana del Mar .
Plaza Ramón Pelayo, s/n, Santillana del Mar, Cantabria**

20:30 – 23:00

FRYDAY – APRIL 27th

09:00 – 10:30	Speaker	Title and authors
	T1A Statistical distributions in risk management – Room 22	
	José María Pérez <i>University of Las Palmas de Gran Canaria</i>	On the use of the generalized poisson distribution in actuarial statistics. E. Gómez-Déniz , F.J. Vázquez-Polo , J.M. Pérez-Sánchez and E. Calderín-Ojeda
	Lluís Bermúdez <i>Universitat de Barcelona</i>	Modelling of claim counts using finite mixture models. Lluís Bermúdez, Dimitris Karlis
	Vanesa Jordá <i>Universidad de Cantabria</i>	Modelling dependent risks with heavy-tail marginals. José María Sarabia, Montserrat Guillen, Faustino Prieto, Vanesa Jordá
	Inmaculada Barranco Chamorro <i>University of Sevilla</i>	A note on slash methodology to deal with symmetrical and unimodal distributions with heavy tails. I. Barranco-Chamorro, J. Reyes, D. Gallardo Mateluna
	T1B Financial risk – Room 24	
	Carlos Esparcia <i>Universidad de Castilla La Mancha</i>	Time-varying risk aversion. an application to european optimal portfolios. Antonio Díaz, Carlos Esparcia
	Luis Ortiz <i>University of Barcelona</i>	Quantifying credit portfolio losses under multi-factor models. G. Colldeforns Papiol, L. Ortiz-Gracia, C.W. Oosterlee
	Javier Perote <i>Universidad de Salamanca</i>	Expected shortfall assessment in commodity ETF portfolios with semi-nonparametric specifications. Esther del Brio, Andrés Mora-Valencia, Javier Perote
	Joaquim Gabarro <i>Universitat Politècnica de Catalunya</i>	Power to Invest. Jorge Castro, Joaquim Gabarro, María Serna

Coffee Break

10:30 – 11:00

	Speaker	Title and authors
11:00 – 12:15	T1A Life insurance I – Room 22	
	Mercedes Ayuso <i>University of Barcelona</i>	Estimación de la concurrencia de pensiones para las generaciones nacidas durante el baby-boom español. Estefanía Alaminos, Mercedes Ayuso
	Carmen Boado-Penas <i>University of Liverpool</i>	Automatic Balancing Mechanisms for Mixed Pension Systems. Carmen Boado-Penas, Humberto Godínez-Olivares, Steven Haberman
	Patricia Carracedo <i>Universidad Internacional de Valencia</i>	Spatio-temporal modeling mortality for ages after retirement in Europe. Patricia Carracedo, Ana Debón
	T1B Models for risk analysis II – Room 24	
	Yoel Yera <i>Universidad Carlos III de Madrid</i>	Simultaneous risk events modeling by the batch markov-modulated Poisson process. Yoel G. Yera, Rosa E. Lillo Pepa Ramírez-Cobo
José Garrido <i>Concordia University</i>	Bayesian Credibility for GLMs. Oscar Quijano, José Garrido	
Antonio J. Sáez-Castillo <i>Universidad de Jaén</i>	Applications of the GLM Conway-Maxwell-Poisson regression model on the analysis of financial and actuarial datasets. Antonio J. Sáez-Castillo, Antonio Conde-Sánchez	
12:15 – 13:30	T1A Life insurance II– Room 22	
	Francisco G. Morillas <i>Universitat de Valencia</i>	¿Es adecuado construir nuestra tabla de mortalidad a partir de la del conjunto del sector? Riesgos y soluciones. Jose M. Pavía, Josep Lledó, Francisco G. Morillas
	Zuleyka Díaz-Martínez <i>Universidad Complutense de Madrid</i>	Simplificando la credibilidad de Hachemeister . Zuleyka Díaz Martínez, José Fernández Menéndez, Óscar Rodríguez Ruiz
	Enrique Calderin <i>University of Melbourne</i>	Estudio de la Información del Microbioma en Modelos de Análisis de Riesgo. Enrique Calderin Ojeda, Guillermo H. Lopez Campos
	T1A Premium computation and risk – Room 24	
	Jose Luis Vilar Zanón <i>Universidad Complutense de Madrid</i>	An experience based premium rate discounts system in crop insurance using Tweedie’s regressions. Jose-Luis Vilar-Zanón, Antonio Heras
Gema Pigueiras <i>Universidad de Cádiz</i>	Una familia de principios de prima basada en una distribución de riesgo ajustada. Antonia Castaño-Martínez, Gema Pigueiras, Miguel A. Sordo	
Marta Sánchez <i>Universidad de Cádiz</i>	Un análisis de sensibilidad Bayesiana aplicada a distintos principios de primas. M. Sánchez-Sánchez, M. A. Sordo, A. Suárez-Llorens, E. Gómez-Déniz	

13:30 – 14:00

Closing Session

**Salón de Actos. Facultad de Ciencias Económicas y Empresariales
Universidad de Cantabria**

Speakers

Montserrat Guillén, *University of Barcelona*

José María Sarabia, *University of Cantabria*

Juan Rodríguez Poo, *University of Cantabria*

Lunch

14:00 – 15:30

Social Program

Wednesday, 25th April

20:00h – 22:00h Welcome reception at the Hotel Santemar.
Address: C/ Joaquín Costa nº 28, Santander.

Thursday, 26th April

16:30h – 23:00h Guided visit to Comillas and Santillana del Mar. The departure will be at the Facultad de Ciencias Económicas y Empresariales (Universidad de Cantabria).

After the visit, the Gala Dinner of the congress will take place at the Parador de Santillana del Mar.



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Past Editions

RISK 2015: Barcelona, May 26-29, 2015.

RISK 2013: Las Palmas de Gran Canaria, Oct 17-18, 2013.

RISK 2011: Carmona, Sevilla, Oct 20-21, 2011.

RISK 2009: Madrid, Jun 18-19, 2009.

RISK 2007: Castro Urdiales, Cantabria, Apr 18-19, 2007.

RISK 2005: Barcelona, Oct 6-7, 2005.





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