

Petar Jevtić, Ph.D.

CONTACT INFORMATION	<p>Arizona State University School of Mathematics and Statistical Sciences WXR Room 341, 901 S. Palm Walk Tempe, AZ 85287-1804, USA Work: +1-480-965-3951 Fax: +1-480-965-8119 e-mail: petar.jevtic@asu.edu</p>
RESEARCH INTERESTS	<ul style="list-style-type: none">• Methodological: Predictive Analytics, Stochastic processes and geometry (Lévy Processes, Marked Point Processes, Random Graph Theory, Spatial Point Processes)• Domain: Cyber risk, Smart contract risk, Network Risk, Autonomous Systems, Longevity Risk, Pension Mathematics, Property&Casualty, Health Insurance, Mathematical Finance
CURRENT ACADEMIC APPOINTMENTS	<p>Assistant Professor, Arizona State University, USA from August 2017 to Present School of Mathematics and Statistical Sciences Tenure track</p> <p>Adjunct Assistant Professor, McMaster University, Canada from July 2019 to Present Department of Mathematics and Statistics</p> <p>Affiliated Faculty Member, Arizona State University, USA from July 2020 to Present Watts College of Public Service and Community Solutions Center for Emergency Management and Homeland Security</p>
PREVIOUS ACADEMIC APPOINTMENTS	<p>Assistant Professor, McMaster University, Canada July 2014 to July 2017 Faculty of Science, Department of Mathematics and Statistics Contractually Limited Appointment</p> <p>Postdoctoral Fellow, McMaster University, Canada September 2013 to June 2014 Faculty of Science, Department of Mathematics and Statistics</p>
ACADEMIC VISITS	<p>January, 2012 - October, 2012, University of Pennsylvania, The Wharton School, USA August, 2011 - January, 2012, Temple University, USA</p>
EDUCATION	<p>University of Turin Department of Economic, Social, Mathematical and Statistical Sciences, Turin, Italy Ph.D. Economics - Statistics and Applied Mathematics, March 2013</p> <ul style="list-style-type: none">• Thesis Title: <i>Topics in Probability and Stochastic Modeling in Insurance, Finance and Combinatorial Optimization</i>• Supervisor: Associate Professor Elena Vigna• Committee: Prof. Paolo Ghirardato, Prof. Fausto Gozzi, Prof. Michele Vanmaele <p>University of Belgrade, Faculty of Economics, Belgrade, Serbia (joint degree with Hautes Études Commerciales (HEC) Paris, France) M.S. Economics, November 2006</p> <p>University of Belgrade, School of Electrical Engineering, Belgrade, Serbia Dipl. Ing. Computer Science and Engineering, June 2004</p>

Notational considerations: *Unless otherwise stated the author list is given in alphabetical order indicating equal or similar contributions to the research project. With superscript 1 the first author is denoted, with superscript 2 the second... indicating larger contributions to the project. Additional superscript us/gS designates an undergraduate/graduate student (current or at the time of paper submission) while an underline denotes the corresponding author. Where available, the most current impact factors were given.*

Publication context : *My publications in academic journals related to Actuarial Science¹ and closely related topics reflect my record in my core research domain. In pursuit of ASU's mission of interdisciplinary research, my publications in other journals reflect my vision to work on practical, transdisciplinary risk-related theoretical and methodological questions grounded in mathematics and statistics. My research in emerging landscapes of risk continuously hones my skills as both as a mathematician and as a risk modeler and advances me as an investigative collaborator to my students and co-authors.*

Google Scholar Profile Link: [Petar Jevtic](#).

As of May 15th, 2022: Total Citations = 128, h-index = 6, and i10-index = 5.

REFEREED
JOURNAL
PUBLICATIONS
(RJP)

- [15] [Jevtić Petar](#) and Lanchier Nicolas. "[Percolation Framework For Loss Distribution Of Smart Contract Risks](#)" (Accepted: *Advances in Complex Systems*, May 2022)
- [14] [Jevtić Petar](#) and Regis Luca. "[A Square-Root Factor-Based Multi-Population Extension of the Mortality Laws](#)" *Mathematics* 9.19 (2021)
- [13] [Jevtić Petar](#), Kwak Minsuk and Pirvu Traian. "[Practical Partial Equilibrium Framework for Pricing of Mortality-Linked Instruments in Continuous Time](#)" *European Actuarial Journal* (2021).
- [12] Cupido Kyran^{1,gs}, [Jevtić Petar](#)² and Paez Antonio³. "[Spatial Patterns of Mortality in the United States: A Spatial Filtering Approach](#)" *Insurance: Mathematics and Economics* 95 (2020): 28-38.
- [11] Cupido Kyran^{1,gs}, Fotheringham A. Stewart² and [Jevtić Petar](#)³. "[Local Modeling of U.S. Mortality Rates: A Multiscale Geographically Weighted Regression Approach](#)", *Population, Space and Place* 27.1 (2021): e2379
- [10] [Jevtić Petar](#) and Lanchier Nicolas. "[Dynamic structural percolation model of loss distribution for cyber risk of small and medium-sized enterprises for tree-based LAN topology.](#)" *Insurance: Mathematics and Economics* 91 (2020): 209-223.
- [9] Počuča Nikola^{1,gs}, [Jevtić Petar](#)², McNicholas Paul³ and Miljkovic Tatjana⁴. "[Modeling Frequency and Severity of Claims with the Zero-Inflated Generalized Cluster-Weighted Models](#)" *Insurance: Mathematics and Economics* 94 (2020): 79-93.
- [8] [Jevtić Petar](#), Lanchier Nicolas, and La Salle Axel^{gs}. "[First and second moments of the size distribution of bond percolation clusters on rings, paths and stars.](#)" *Statistics & Probability Letters* (2020): 108714.
- [7] [Jevtić Petar](#) and Regis Luca. "[A continuous-time stochastic model for the mortality surface of multiple populations.](#)" *Insurance: Mathematics and Economics* 88 (2019): 181-195.
- [6] [Jevtić Petar](#), Marena Marina, and Semeraro Patrizia. "[Multivariate Marked Poisson Processes and Market Related Multidimensional Information Flows](#)" *International Journal of Theoretical and Applied Finance* Vol. 22, No. 02, 1850058 (2019)

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¹*Insurance: Mathematics and Economics* is premier journal in Actuarial Science. *European Actuarial Journal* is highly reputable journal in Actuarial Science.

Petar Jevtić, Ph.D.

- REFEREED JOURNAL PUBLICATIONS (RJP) (CONTINUED)**
- [5] **Jevtić Petar**¹ and Hurd R. Thomas.². "The joint mortality of couples in continuous time", *Insurance: Mathematics and Economics* 75 (2017): 90-97.
 - [4] **Jevtić Petar**, Marena Marina, and Semeraro Patrizia. "A note on Marked Point Processes and multivariate subordination", *Statistics & Probability Letters* 122 (2017): 162-167.
 - [3] **Jevtić Petar** and Regis Luca. "Assessing the solvency of insurance portfolios via a continuous-time cohort model" *Insurance: Mathematics and Economics* 61 (2015): 36-47.
 - [2] **Jevtić Petar** and Steele J. Michael. "Euclidean Networks with a Backbone and a Limit Theorem for Minimum Spanning Caterpillars" *Mathematics of Operations Research* 40(4) (2015): 992–1004.
 - [1] **Jevtić Petar**, Luciano Elisa, and Vigna Elena. "Mortality surface by means of continuous time cohort models" *Insurance: Mathematics and Economics* 53.1 (2013): 122-133.
- BOOK CHAPTERS (BC)**
- [1] Regis, Luca, and **Jevtić Petar**. "Stochastic Mortality Models and Pandemic Shocks." *Pandemics: Insurance and Social Protection*. Springer, Cham, 2022. 61-74.
↵ since joining ASU _____
- REFEREED CONFERENCE PAPERS (RCP)**
- [1] Carvalhaes Thomaz^{1,gs}, Inanlouganji Alireza^{2,gs}, Boyle Esther^{3,gs}, **Jevtić Petar**⁴, Pedrielli Giulia⁵, and Reddy Agami⁶, "A Simulation Framework for Service Loss of Power Networks under Extreme Weather Events: A Case of Puerto Rico" In 2020 IEEE 16th International Conference on Automation Science and Engineering (CASE) (pp. 1532-1537). IEEE.
↵ since joining ASU _____
- TECHNICAL REPORTS (TR)**
- [4] Boyle Esther^{gs}, Sterner Beckett (Co-PI), **Jevtić Petar** (PI). "Emerging Risks in the Health Sector: Changing Species Distributions and Seasonality". Jul. 2021, The Society of Actuaries (SOA).
 - [3] Boyle Esther^{gs}, Pesic Sasa, **Jevtić Petar** (PI), Boscovic Dragan (Co-PI). "Peer-to-Peer Insurance: Blockchain Implications". Mar. 2021, The Society of Actuaries (SOA).
 - [2] Boyle Esther^{gs}, Sterner Beckett (Co-PI), Kinzig Ann, **Jevtić Petar** (PI). "New Fire Hazard Risk from Policy Responses to Climate Change". Feb. 2021, The Society of Actuaries (SOA).
 - [1] **Jevtić Petar** (PI), Chen Yan (Co-PI) and Shi Yue. "Loss modeling for rollover of autonomous vehicles". Nov. 2019, The Society of Actuaries (SOA).
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Petar Jevtić, Ph.D.

- PAPERS IN REVIEW OR UNDER REVISION (PRUR) (CONTINUED)
- [7] Chiardona Stefano^{1,gs}, **Jevtić Petar**, Lanchier Nicolas and Pesic Sasha. "Framework for Cyber Risk Loss Distribution of Client-Server Networks: A Bond Percolation Model and Industry Specific Case Studies" (Submitted: *Management Science*)
 - [6] Martinez Wilmer^{1,gs}, Carvalhaes Thomaz^{2,gs}, **Jevtić Petar**³ and Reddy T. Agami⁴. "A Framework for Quantifying Disaster Level Social Hardship: The case of Hurricane Maria in Puerto Rico" (Submitted: *Natural Hazards*)
 - [6] Cupido Kyran^{1,gs}, **Jevtić Petar**² and Boonen Tim³. "Space, Mortality, and Economic Growth" (Submitted: *Journal of Forecasting*)
 - [5] Qin Chengwei^{1,gs}, **Jevtić Petar**² and Zhou Hongjuan³. "Multi-population Mortality Modelling with Lévy Processes" (Submitted: *Decisions in Economics and Finance*)
 - [4] Boyle Esther^{1,gs}, Inanlouganji Alireza^{2,gs}, Carvalhaes Thomaz^{3,gs}, **Jevtić Petar**⁴, Pedrielli Giulia⁵ and Reddy T. Agami⁶. "Social Vulnerability and Power Loss Mitigation: A Case Study of Puerto Rico" (Revision submitted: *International Journal of Disaster Risk Reduction*)
 - [3] La Salle Axel^{1,gs}, Kumar Anil^{2,gs}, **Jevtić Petar**³ and Boscovic Dragan⁴. "Joint Modeling of Hyperledger Fabric and Sybil attack: Petri Net approach" (Revision in progress: *Simulation Modelling Practice and Theory*)
 - [2] Chiardona Stefano^{1,gs}, **Jevtić Petar** and Lanchier Nicolas. "Framework for Cyber Risk Loss Distribution of Hospital Infrastructure: Bond Percolation on Mixed Random Graphs Approach" (Revision in progress for: *Risk Analysis*)
 - [1] Boyle Esther, **Jevtić Petar** and Regis Luca "Matrix Variate Distributions as a Tool for Insurers and their Application to Natural Hazard Loss Modeling" (Submitted: *Variance Journal*)
- ↵ since joining ASU
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- WORKING PROJECTS NEAR COMPLETION (WPNC)
- [6] Xiang Gao^{1,gs}, Hyndman Cody², Pirvu Traian³ and Jevtić Petar⁴. "Optimal annuitization post-retirement with labor income" (Target Journal: *Mathematics and Financial Economics*)
 - [5] Deng Xiaoying^{1,gs}, Boyle Esther^{2,gs}, Jevtić Petar³, McNicholas Paul⁴ and Miljkovic Tatjana⁵. "Mixture of Multiple Regressions with Censored Data for Modeling Veteran's Benefit Payments" (Target Journal: *North American Actuarial Journal*)
 - [4] "Quantile hedging for annuity contracts" with Sari Cahyaningtias^{gs}, Gardner Carl and Privu Traian.
 - [3] "(Social) Determinants of the Demand for Life Insurance" with Wilmer Martinez^{gs}, Cupido Kyran, and Su Jinaxi.
 - [2] "Traffic accidents and spatial features of built environment: Case study of Denver, Colorado" with Pesic Sasha, Cupido Kyran, and Nedeljkovic Djordje (Target Journal: *Accident Analysis & Prevention*)
 - [1] "Stochastic Cyber Vulnerability Assessment of Power Network Infrastructure in Puerto Rico" with Boyle Esther^{gs} and Chiardona Stefano^{gs}
- ↵ since joining ASU
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**WORKING
PROJECTS IN
PROGRESS (WPIP)**

- [6] "Game theory and Critical Infrastructure Protection: Bibliographical and Qualitative Analysis " with Delos Santos Cody^{gs}, Chandra Varun^{us} and Gall Melanie.
 - [5] "Spatial Natural Hedging" with Regis Luca and Zhou Kenneth.
 - [4] "Disaster Loss Normals" with Gall Melanie, Boyle Esther^{gs}, and Cutter L. Susan
 - [3] "A join-loss model of wildfire and post-fire flooding" with Martinez Wilmer^{gs}, Su Jianxi, and Gall Melanie.
 - [2] "Clustering Telemetric Velocity-Acceleration Heat Maps using a Mixture of Matrix Variate Bilinear Factor Analyzers" with Počuča Nikola^{gs}, McNicholas Paul and Gallagher Michael.
 - [1] "Dynamic Structural Percolation Model of Loss Distribution in Social Networks Based on Erdős-Rényi Graphs" with Lanchier Nicolas
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- ↵ *since joining ASU*

PATENTS (P)

- [4] United States Provisional Patent Application
 - Number: 63/329,298
 - Date of Submission: on April 8th, 2022
 - Title of Invention: *Framework for Cyber Risk Loss Distribution of Hospital Infrastructure: Bond Percolation on Mixed Random Graphs Approach*
 - Inventors: Petar Jevtić, Stefano Chiaradonna and Nicolas Lanchier
- [3] United States Provisional Patent Application
 - Number: 62/730,649
 - Date of Submission: on September 13th, 2018
 - An international PCT application filled on September 13th, 2019
 - Title of Invention: *"Systems And Methods For A Simulation Program Of Percolation Model For The Loss Distribution Caused By A Cyber Attack"*
 - Inventors: Petar Jevtić and Nicolas Lanchier
- [2] United States Provisional Patent Application
 - Number: 62/779,870
 - Date of Submission: December 14th, 2018
 - Title of Invention: *"Systems And Methods of a Percolation Model for the Loss Distribution Caused By a Cyber-Attack, or Contagion-Like Failure, of a Smart City Network"*
 - Inventors: Petar Jevtić, Nicolas Lanchier and Aaron Bergstrom
- [1] United States Provisional Patent Application
 - Number: 62/821,720
 - Date of Submission: March 21st, 2019
 - Title of Invention: *"Systems and methods for a simulation program of percolation model for the loss distribution of smart contracts caused by a cyber attack or contagious failure"*
 - Inventors: Petar Jevtić and Nicolas Lanchier

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**EXTERNAL
GRANTS (EG)**

- [11] Granting body: Casualty Actuarial Society (CAS)
 - Date: June 2022 - December 2023
 - Project Title: “Leveraging machine learning and SHELDUS data to discern daily impact of disaster losses on mortgage default investment”
 - Roles: Dr. Petar Jevtić (sub-award PI) (REC 50%), Dr. Malenie Gall (sub-award Co-PI) Dr. Jianxi Su (Co-PI Purdue University) Dr. Antik Chakraborty (PI Purdue University)
 - Grant amount: 7,999 USD (subaward, 50% of total grant allocation)
 - Status: Awarded.

- [10] Granting body: US Agency for International Development (USAID)
 - Date: September 2021 - July 2022
 - Project Title: “Cybersecurity meta-analysis”
 - Roles: Dr. Petar Jevtić (Co-PI) (REC 33%), Dr. Youzhi Bao (PI) (ASU), Dr. Melanie Gall (Co-PI) (ASU)
 - Grant amount: 59,655 USD
 - Status: In progress.

- [9] Granting body: The Society of Actuaries (SOA)
 - Date: July 2021 - May 2022
 - Project Title: “(Social) Determinants of the Demand for Life Insurance”
 - Roles: Dr. Petar Jevtić (PI) (REC 100%) (\$8,495 subaward to Dr. Jianxi Su, Purdue University)
 - Grant amount: 28,732 USD
 - Status: In progress.

- [8] Granting body: Casualty Actuarial Society (CAS)
 - Date: May 2021 -
 - Project Title: “Matrix Variate Distributions as a Tool for Insurers and their Application to Natural Hazard Loss Modeling”
 - Roles: Dr. Petar Jevtić (PI) (REC 100%)
 - Grant amount: 18,170 USD
 - Status: In progress - work submitted to journal.

- [7] Granting body: National Science Foundation (NSF)
 - Date: October 2020 - present
 - Project Title: “SaTC: CORE: Medium: Self-Adaptive Cyber Risk Management via Machine to Machine Economy” CNS-2000792
 - Roles: Dr. Petar Jevtić (Co-PI) (REC 20%), Prof. Dragan Boscovic (PI) (ASU) Dr. Giulia Pedrielli (Co-PI) (ASU), Dr. Youzhi Bao (Co-PI) (ASU) Dr. Nicolas Lanchier (Co-PI) (ASU)
 - Grant amount: 750,000 USD
 - Status: In progress.

- [6] Granting body: Miscellaneous Federal Government Agencies
 - Date: October 2020 - present
 - Project Title: “Cybersecurity Considerations for Blockchain”
 - Roles: Dr. Petar Jevtić (Co-PI) (REC 50%), Prof. Dragan Boscovic (PI) (ASU)
 - Grant amount: 150,000 USD
 - Status: Completed.

- [5] Granting body: The Society of Actuaries (SOA)
- Date: January 2021 - May 2021
 - Project Title: “Emerging Risks in the Health Sector from Changing Species Distributions and Seasonality”
 - Roles: Dr. Petar Jevtić (PI) (REC 50%), Dr. Becket Sterner (Co-PI) (ASU)
 - Grant amount: 9,197 USD
 - Status: Completed.
- [4] Granting body: The Society of Actuaries (SOA)
- Date: September 2019 - present (completion expected December 2020)
 - Project Title: “Peer-to-Peer Insurance – Blockchain Implications”
 - Roles: Dr. Petar Jevtić (PI) (REC 50%)
Prof. Dragan Boscovic (Co-PI) (ASU)
 - Grant amount: 52,457 USD
 - Status: Completed.
- [3] Granting body: The Society of Actuaries (SOA)
- Date: September 2019 - present (completion expected December 2020)
 - Project Title: “New Fire Hazard Risk from Policy Responses to Climate Change”
 - Roles: Dr. Petar Jevtić (PI) (REC 50%), Dr. Becket Sterner (Co-PI) (ASU)
 - Co-Author on the project: Prof. Ann Kinzig (ASU)
 - Grant amount: 9,200 USD
 - Status: Completed.
- [2] Granting body: The Society of Actuaries (SOA)
- Date: September 2018 - October 2019
 - Project Title: “Loss modeling for rollover in autonomous vehicles”
 - Roles: Dr. Petar Jevtić (PI) (REC 50%)
Dr. Yan Chen (Co-PI) (ASU)
 - Grant amount: 35,745 USD
 - Status: Completed.
- ~ since joining ASU*
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- [1] Granting body: Montreal Institute of Structured Finance and Derivatives
- Date: September 2014 - September 2015
 - Project Title: “Securitization, Pricing, and Management of Longevity Risks and Derivatives”
 - Roles: Dr. Petar Jevtić (25% of funds) (Co-PI), Dr. Traian A. Pirvu (PI),
Dr. Cody B. Hyndman (Co-PI), Dr. Patrice Gaillardetz (Co-PI)
 - Grant amount: 20,000 CAD
 - Status: Completed.

- INTERNAL GRANTS [1] Granting body: ASU, Center for Assured and Scalable Data Engineering (CASCADE)
- Date: May 2018 - February 2019
 - Project Title: “Smart contract insurance”
 - Roles: Dr. Petar Jevtić (PI) (100% of funds) and Dr. Michael Metel
 - Grant amount: 10,000 USD
 - Status: Completed

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Petar Jevtić, Ph.D.

CONTRIBUTED
CONFERENCE
TALKS (CCT)

- [24] July 12–15, 2022, 25th (2022) International Congress on Insurance: Mathematics and Economics (forthcoming, pending abstract acceptance)
 - [23] August 3-6, 2021, University of Illinois at Urbana-Champaign, USA, *57th Actuarial Research Conference* (forthcoming, pending abstract acceptance)
 - [22] April 20-22, 2022, *Tenth International Hybrid Conference on Mathematical And Statistical Methods For Actuarial Sciences AND Finance - MAF2022* "Framework for Cyber Risk Loss Distribution of Hospital Infrastructure: Bond Percolation on Mixed Random Graphs Approach" by Jevtic, Chiaradonna and Lanchier (Zoom presentation)
 - [22] August 19-21, 2021, DePaul University, USA, *56th Actuarial Research Conference*, "Dynamic Structural Percolation Model of Loss Distribution for Contagious Failures in Vehicle-to-Vehicle Collaboration for Freeway Space Monetization" by Jevtić, Pesic and Lanchier (Zoom presentation)
 - [21] July 5-9, 2021, Munich, Germany, *24rd International Congress on Insurance: Mathematics and Economics (IME) 2021*, "Dynamic Structural Percolation Model of Loss Distribution for Contagious Failures in Vehicle-to-Vehicle Collaboration for Freeway Space Monetization" by Jevtić, Pesic and Lanchier (Zoom presentation)
 - [20] August 20-24, 2020, Hong Kong, PRC, *2020 IEEE 16th International Conference on Automation Science and Engineering (CASE)*, "A Simulation Framework for Service Loss of Power Networks under Extreme Weather Events: A Case of Puerto Rico" (video presentation)
 - [19] August 10-12, 2020, Nebraska-Lincoln, USA, *55th Actuarial Research Conference (ARC)*, "Dynamic Structural Percolation Model of Loss Distribution in Social Networks Based on Erdős-Rényi Graphs" (Zoom presentation) by Jevtić and Lanchier
 - [18] August 14-17, 2019, Indianapolis, USA, *54th Actuarial Research Conference (ARC)*, "Dynamic structural percolation model of loss distribution for cyber risk of smart contracts on random tree-stars graphs" by Jevtić and Lanchier
 - [17] July 10-12, 2018, Munich, Germany, *23rd International Congress on Insurance: Mathematics and Economics (IME) 2019*, "Dynamic structural percolation model of loss distribution for cyber risk of smart contracts on random tree-stars graphs" by Jevtić and Lanchier (video presentation)
 - [16] July 15-18, 2018, Sydney, Australia, *22th International Congress on Insurance: Mathematics and Economics (IME) 2018*, "A Structural Model Of Cyber Risk Aggregate Loss Distribution Of Medium Size Enterprises" by Jevtić and Lanchier
 - [15] June 4-8, 2018, Berlin, Germany, *31st International Congress of Actuaries*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
 - [14] September 21-22, 2017, Taipei, ROC Taiwan, *Thirteenth International Longevity Risk and Capital Markets Solutions Conference*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
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- [13] July 3-5, 2017, Vienna, Austria, *21th International Congress on Insurance: Mathematics and Economics (IME) 2017*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
 - [12] December 3-5, 2016, Niagara Falls, Canada, *2016 Winter Canadian Mathematical Society Meeting*, "The joint mortality of couples in continuous time" by Jevtić and Hurd
 - [11] October 14-16, 2016, Niagara Falls, Canada, *International Conference on Statistical Distributions and Applications*, "The joint mortality of couples in continuous time" by Jevtić and Hurd

Petar Jevtić, Ph.D.

- CONTRIBUTED
CONFERENCE
TALKS (CCT)
(CONTINUED)
- [10] September 29-30, 2016, Chicago, USA, *Twelfth International Longevity Risk and Capital Markets Solutions Conference*, "The joint mortality of couples in continuous time" by Jevtić and Hurd
 - [9] July 25-27, 2016, Atlanta, USA, *20th International Congress on Insurance: Mathematics and Economics (IME) 2016*, "The joint mortality of couples in continuous time" by Jevtić and Hurd
 - [8] August 3-7, 2015, Nairobi, Kenya, *3rd Strathmore International Mathematics Conference (SIMC 2015)*, "A continuous-time model for the mortality surface of multiple populations" by Jevtić and Regis
 - [7] June 24-26, 2015, Liverpool, UK, *19th International Congress on Insurance: Mathematics and Economics (IME) 2015*, "A continuous-time model for the mortality surface of multiple populations" by Jevtić and Regis
 - [6] December 5-8, 2014, Hamilton, Canada, *2014 CMS Winter Meeting*, "Assessing the solvency risk of insurance portfolios via a continuous time cohort model" by Jevtić and Regis
 - [5] June 17-20, 2014, Bogota, Colombia, *First International Congress on Actuarial Science and Quantitative Finance, Colombia*, "Assessing the solvency risk of insurance portfolios via a continuous time cohort model" by Jevtić and Regis
 - [4] May 29 - June 1, 2014, Samos, Greece, *8th Conference in Actuarial Science and Finance*, "Assessing the solvency risk of insurance portfolios via a continuous time cohort model" by Jevtić and Regis
 - [3] February 6-7, 2014, Brussels, Belgium, *Actuarial and Financial Mathematics Conference*, "Assessing the solvency risk of insurance portfolios via a continuous time cohort model" by Jevtić and Regis
 - [2] January 27 - February 1, 2013, Ascona, Switzerland, *Perspectives on Actuarial Risks in Talks of Young Researchers*, "Mortality Surface by Means of Continuous Time Cohort Models" by Jevtić, Luciano and Vigna
 - [1] September 7-8, 2012, Waterloo, Canada, *Eighth International Longevity Risk and Capital Markets Solutions Conference*, "Mortality Surface by Means of Continuous Time Cohort Models" by Jevtić, Luciano and Vigna
- INVITED TALKS
EXTERNAL (ITE)
- [16] November 15, 2021, *Mid Atlantic Actuarial Club*. "Emerging Risks in the Health Sector: Changing Species Distributions and Seasonality" by Jevtić, Boyle and Lanchier
 - [15] June 22, 2021, *CRISP/ERIC Webinar - Pathways for Resilient Infrastructure of Islanded Communities: A Science Driven Approach* "Pathways to more Resilient Communities: Assessing Current and Future Resilient Power Infrastructure of Islanded Communities" by Jevtić et al.
 - [14] July 29, 2020, National University of Singapore, Centre for Maritime Studies, Centre for Next Generation Logistics Faculty of Engineering, Centre of Excellence in Modelling and Simulation for Next Generation Ports Faculty of Engineering, *Webinar*, "Percolation Framework For Loss Distribution Of Smart Contract Risks" by Jevtić and Lanchier
 - [13] February 28, 2019, McMaster University, Canada, MacData Institute, *Seminar*, "Spatial Patterns of Mortality in the United States: A Spatial Filtering Approach" by Cupido, Jevtić and Paez
 - [12] January 29, 2019, Purdue University, USA, Department of Statistics, *Seminar*, "A Structural Model of Loss Distribution for Cyber Risk of Medium Size Enterprises" by Jevtić and Lanchier
 - [11] September 14, 2018, University of Illinois at Urbana-Champaign, USA, School of Mathematics, *IRisk Lab Seminar*, "A Structural Model of Loss Distribution for Cyber Risk of Medium Size Enterprises" by Jevtić and Lanchier

Petar Jevtić, Ph.D.

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- INVITED TALKS
EXTERNAL (ITE)
- [10] July 19, 2018, Commonwealth Scientific and Industrial Research Organization (CSIRO), Melbourne, Australia, *Seminar*, "A Structural Model of Loss Distribution for Cyber Risk of Medium Size Enterprises" by Jevtić and Lanchier
 - [9] March 9, 2018, Queen's University Belfast, Queen's Management School, Centre for Health Research, Northern Ireland, UK, *Seminar*, "Estimating Veterans Health Benefit Grants Using the Generalized Linear Mixed Cluster-Weighted Model with incomplete Data" by Jevtić, X. Deng, P. McNicholas and T. Miljkovic
 - [8] November 17, 2017, University of Melbourne, Australia, Faculty of Business and Economics, *Seminar*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
 - [7] November 9, 2017, UNSW, Australia, The School of Risk and Actuarial Studies, *Seminar*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
 - [6] October 13, 2017, University of Texas at El Paso, USA, College Of Business Administration, *Seminar*, "Longevity bond pricing in equilibrium" by Jevtić, Kwak and Pirvu
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 - [5] February 7, 2017, York University, Canada, Department of Mathematics and Statistics, *Colloquia*, "The joint mortality of couples in continuous time" by Jevtić and Hurd
 - [4] October 20, 2016, Miami University, USA, Department of Statistics, *Invited Speaker Series*, "The joint mortality of couples in continuous time" by Jevtić and Hurd
 - [3] October 16, 2015, Concordia University, Canada, *Séminaire de Mathématiques Actuarielles et Financières*, "A continuous-time model for the mortality surface of multiple populations" by Jevtić and Regis
 - [2] August 21, 2015, HEC Lausanne, Switzerland, *DSA Seminar*, "A continuous-time model for the mortality surface of multiple populations" by Jevtić and Regis
 - [1] September 10, 2013, Belgrade, Serbia, *Mathematical Institute SANU*, "Two example applications of the differential evolution algorithm in finance and insurance"
- INVITED TALKS
INTERNAL (ITI)
- [8] March 2nd, 2022, ASU, School of Mathematical and Statistical Sciences, Bridge To Research Seminar, "Framework for loss distribution of the operational risk of vehicle-to-vehicle cooperation to marshal traffic via monetization of highway space"
 - [7] November 17, 2021, ASU, School of Mathematical and Statistical Sciences, *Casualty Actuaries of The Desert States (CADS)*. "A Dependence Model for Floods and Wildfires"
 - [6] October 23, 2020, ASU, School of Computing, Informatics, and Decision Systems Engineering, *Decision Systems Engineering Invited Talk*, "Framework for Loss Distribution of the Operational Risk of Vehicle-to-Vehicle Cooperation to Marshal Traffic via Monetization of Highway Space"
 - [5] June 19, 2019, ASU, CASCADE, *AMEX visit invited talks*, "Dynamic structural percolation model of loss distribution for cyber risk of smart contracts on random tree-stars graph"
 - [4] April 26, 2019, ASU, CASCADE Workshop/Retreat on Big Data Challenges, Techniques, and Applications, "Dynamic structural percolation model of loss distribution for cyber risk of smart contracts on random tree-stars graph"
 - [3] February 19, 2019, ASU, CASCADE CIA visit, "Dynamic structural percolation model of loss distribution for cyber risk of smart contracts on random tree-stars graph"
 - [2] March 18, 2019, ASU, School of Mathematical and Statistical Sciences, *RTG Seminar*, "Estimating Veterans Health Benefit Grants Using the Generalized Linear Mixed Cluster-Weighted Model with incomplete Data"
 - [1] March 11, 2019, ASU, School of Mathematical and Statistical Sciences, *RTG Seminar*, "Spatial Patterns of Mortality in the United States: A Spatial Filtering Approach"
↵ since joining ASU
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Petar Jevtić, Ph.D.

- ATTENDED**
WORKSHOPS,
SUMMER SCHOOLS,
CONFERENCES
(AWSSC)
- [15] Apr 2022, IGEN Online Workshop, *Strategies for Equity-based Holistic Review*
 - [14] Apr 2022, IGEN Online Workshop, *Fundamentals of Equity in Graduate Admissions*
 - [13] March 2020, Phoenix, USA, *Hyperledger Global Forum 2020 - Linux Foundation Events*
 - [12] March 2019, Phoenix, USA, *Energy Blockchain Consortium Regional Summit*
 - [11] October 2018, Tempe, USA, ASU, *Faculty and Academic Professional Search Workshop*
 - [10] September 2018, Scottsdale, USA, *Nexus Blockchain conference*
 - [9] October 2017, Minnesota, USA, IMA, *Agricultural Data Integration...*
 - [8] August 2017, Panama City, Panama, *ASTIN/AFIR Colloquium 2017*
↳ since joining ASU

 - [7] July 2017, Vienna, Austria, *IME Educational Workshop*
 - [6] October 2016, New York, USA, Columbia Uni., *Workshop on Systemic Risk in Insurance*
 - [5] July 2016, Minneapolis / St. Paul, USA, *51st Actuarial Research Conference (ARC)*
 - [4] November 2013, Toronto, Canada, Fields Institute, *Mathematics for New Econ. Thinking*
 - [3] October 2013, Toronto, Canada, Fields Institute., *Quant. Finance Retrospective Workshop*
 - [2] July, 2011, Spain, UPM, *Advanced Statistics and Data Mining Summer School*
 - [1] September 2010, University of Ulm, Germany, *Summer School in Stochastic Calculus*
- INVITED**
WORKSHOPS,
SUMMER SCHOOLS
(IWSS)
- [2] September 10-11, 2019, Grand Forks, Fargo, Microsoft Campus, *Big Data and Big Ideas: A Workshop on Collaborative Project Ideas - Part 2*
↳ since joining ASU

 - [1] August 3-7, 2015, Nairobi, Kenya, *3rd Strathmore International Mathematics Conference (SIMC 2015)*, Mathematical Finance school, *Discrete Time Financial Modelling*
- CONFERENCE**
POSTERS
- [1] February 2013, Brussels, Belgium, *Actuarial and Financial Mathematics Conference "Mortality Surface by Means of Continuous Time Cohort Models"* by Jevtić, Luciano and Vigna

Petar Jevtić, Ph.D.

TEACHING EXPERIENCE (TE) **Arizona State University**, School of Mathematics and Statistical Sciences, USA
Instructor - Graduate Courses

- 2021 Fall, Portfolio Theory and Risk Management (ACT 575)
- 2021 Spring, Data Analytics in Insurance II (ACT 561)
- 2020 Fall, Portfolio Theory and Risk Management (ACT 575)
- 2020 Spring, Data Analytics in Insurance II (ACT 561)
- 2019 Spring, Data Analytics in Insurance II (ACT 561)
- 2018 Fall, Insurance Data Analytics I (ACT 560)

Instructor - Undergraduate Courses

- 2022 Spring, Modern Differential Equations (MAT 275)
- 2021 Fall, Risk Management and Insurance (ACT 301)
- 2021 Spring, Risk Management and Insurance (ACT 301)
- 2020 Fall, Discovery Seminar: Risk and Math (LIA 194)
- 2018 Spring, Actuarial Business Forecasting (ACT 435)
- 2018 Spring, Mathematics of Finance (ACT 310)

↵ *since joining ASU*

McMaster University, Department of Mathematics and Statistics, Canada

Instructor - Graduate Courses

- 2016 Winter, Portfolio Theory and Incomplete Markets (Math 775)
- 2015 Winter, Topics in Financial Mathematics (Math 772)

Instructor - Undergraduate Courses

- 2017 Winter, Introduction to Mathematical Finance (Math 2FM3)
- 2017 Winter, Calculus for Business ... (Math 1M03)
- 2016 Fall, Advanced Functions and Introductory Calculus ... (Math 1K03)
- 2016 Spring/Summer, Introduction to Mathematical Finance (Math 2FM3)
- 2015 Fall, Introduction to Mathematical Finance (Math 2FM3)
- 2015 Fall, Mathematics of Finance (Math 3FM3)
- 2014 Fall, Introduction to Mathematical Finance (Math 2FM3)
- 2014 Fall, Mathematics of Finance (Math 3FM3)
- 2014 Winter, Calculus for Science II (Math 1AA3)
- 2013 Fall, Introduction to Mathematical Finance (Math 2FM3)

University of Turin, Department of Economic, Italy

Instructor

- 2013, Statistics course (Ph.D. students in Law and Economics) (with Marina Marena)
- 2012, Advanced Insurance Seminars (qualified/qualifying actuaries)
Topics: Longevity Risk, Advanced Mortality Models, CAT bonds and Catastrophe Risk, Health Insurance, Alternative Risk Transfer, Reinsurance, Public and Supplementary pensions, Securitization of Insurance Risk
- 2012, IT Training for Finance (undergraduate course)
Topics: Programming with application to finance

Teaching Assistant (for Associate Professor Rosaria Ignaccolo)

- Statistics course (Ph.D. students in Law and Economics)

Petar Jevtić, Ph.D.

- STUDENT ADVISING (SA)
- [13] Cody Delos Santos (January 2022 - present)
 - Ph.D. student in Applied Mathematics, Arizona State University
 - Advisors: Petar Jevtić (Supervisor, Block grant Supervisor²)
 - [12] Sari Cahyaningtias (April 2021 - present)
 - Ph.D. student in Applied Mathematics, Arizona State University
 - Advisors: Petar Jevtić (Supervisor, Block grant Supervisor)
 - [11] Varun Chandra (August 2021 - May 2022)
 - undergraduate student student in mathematics and Barrett, the Honors College student, Arizona State University
 - Advisors: Petar Jevtić (Thesis Committee Chair (and thesis advisor)) Defended Thesis Title: "Game Theory and its Applications to Infrastructure Security: A Bibliometric Analysis"
 - [10] Esther Boyle (February 2019 - present)
 - Ph.D. student in Statistics, Arizona State University
 - Advisors: Petar Jevtić (Supervisor and RA Supervisor: 2020 Spring, 2020 Summer, 2020 Fall, 2021 Spring (partial), 2021 Summer)
 - [9] Stefano Chiaradonna (October 2020 - present)
 - Ph.D. student in Applied Mathematics, Arizona State University
 - Advisors: Petar Jevtić (Co-Supervisor and RA Co-Supervisor: (partial) Fall 2020, Spring 2021, Fall 2021, Spring 2022) (shared with Prof. Lanchier)
 - [8] Axel La Salle (September 2020 - May 2021)
 - Ph.D. student in Applied Mathematics, Arizona State University
 - Advisors: Nicolas Lanchier (Supervisor), Petar Jevtić (RA Supervisor: Fall 2020, (partial) Spring 2021)
 - [7] Wilmer Martinez (September 2020 - December 2021)
 - Ph.D. student in Statistics, Arizona State University
 - Advisors: Dr. J. Fricks (Supervisor), Petar Jevtić (RA Supervisor: Fall 2020, (partial) Spring 2021, (partial) Summer 2021, (partial) Fall 2021)
 - [6] **Kyran Cupido** (August 2017 - April 2020)
 - Ph.D. student in Statistics, Arizona State University
 - Advisors: Petar Jevtić (Supervisor, Block grant Supervisor, RA supervisor: (partial) Fall 2018)
 - Ph.D. committee: Ph.D. Thesis defended. **(Chair) Dr. Petar Jevtic** (Assistant Professor, SoMSS, ASU), (Member) Dr. Mark Reiser (Associate Professor, SoMSS, ASU), (Member) Dr. Nicolas Lanchier (Associate Professor, SoMSS, ASU), (Member) Dr. Yi Zheng (Assistant Professor, SoMSS, ASU), (Member) Dr. Stewart Fotheringham (Regents Professor, School of Geographical Sciences and Urban Planning, ASU), (Member) Dr. Antonio Paez (Professor, Department of Geography and Earth Sciences, McMaster University)
 - Current Position: **Assistant Professor**
Department of Statistics, St. Francis Xavier University, Canada
 - [5] Palak Jain (August 2017 - December 2019)
 - Ph.D. student in Applied Mathematics, Arizona State University
 - Advisors: Petar Jevtić (Advisor, Block grant Supervisor)
- ↪ since joining ASU*
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²Block grants are summer grants given by SoMSS for students to do one-time research with a chosen professor.

Petar Jevtić, Ph.D.

STUDENT ADVISING (SA) (CONTINUED)

- [4] Nikola Počuča (September 2016 - May 2017)
 - Undergraduate student in mathematics, McMaster University
 - Advisors: Petar Jevtić (Co-Supervisor)
 - Currently: Ph.D. student in Statistics - P. McNicholas (Supervisor)
- [3] Deng Xiaoying (September 2016 - December 2017)
 - M.S. student in Statistics, McMaster University
 - Advisors: Petar Jevtić (Co-Supervisor), P. McNicholas (Supervisor)
- [2] He Bingying (September 2015 - December 2016)
 - M.S. student in Financial Mathematics, McMaster University
 - Advisors: Petar Jevtić (Co-Supervisor), T. R. Hurd (Supervisor)
- [1] Chengwei Qin (November 2015 - September 2016)
 - Ph.D. student in Statistics, McMaster University
 - Advisors: N. Balakrishnan (Supervisor), Petar Jevtić (Mentor on a research project)

SERVICE (S)

Arizona State University, School of Mathematics and Statistical Sciences, USA

School Service (SoMSS)

- Ph.D. Thesis Committee Co-Chair for Axel La Salle
- Helped in redesign M.S. courses in the latest program update
- Barrett the Honors Thesis Chair for Varun Chandra, Fall 2021 and Spring 2022
- Chair of Comprehensive Exam Committee (Esther Boyle), Fall 2020
- Ph.D. Thesis Committee Chair for Kyran Cupido, Spring 2020
- Member of MAT590 Comprehensive Exam Committee, Spring 2020
- Actuarial Science Tenure-track Search Committee Member (October 2018 - January 2019)
- Designed curriculum for several graduate classes in new M.S. program in Actuarial Science
- Chair of ACT561 Comprehensive Exam Committee (Palak Jain), Fall 2019
- Member of APM541 Comprehensive Exam Committee, Spring 2020
- Organized and supported seminars with external speakers: Prof. P. McNicholas (McMaster University), Prof. D. Bauer (University of Wisconsin-Madison), and Dr. T. Pirvu (McMaster University).

University Service

- Center for Assured and Scalable Data Engineering - Expert in residence, August 2019 -
- Center for Biodiversity of Outcomes - Faculty Affiliate, September 2019 -

Professional Service

- ARC 2020 - Moderator SIS Round Table: Blockchain\Smart Contracts in Insurance
- Actuarial Research Conference (ARC) 2020 - Scientific Committee Member
- Enhancing Resilience of Island Communities (ERIC) - Team member, April 2020 -
- Society of Actuaries Research (SOA) Project Oversight Group Member "Decentralized Finance in Insurance"
- Society of Actuaries Research (SOA) Project Oversight Group Member "Environmental Risk Paper Series"
- Society of Actuaries Research (SOA) Project Oversight Group Chair "Quantification of Cyber Risk for Actuaries: An Economic-Functional Approach"
- Ad-hoc journal reviewer for: Insurance: Mathematics and Economics, Risks, ASTIN Bulletin, Scandinavian Actuarial Journal, Annals of Actuarial Science, Journal of Computational Science, Sustainability
- Grant reviewer for Mitacs (Canadian funding agency)
- Assessor for University of Johannesburg, College of Business and Economics
- Facets Journal (Canada's first multidisciplinary open access science journal)
Role: Data Science Theory and Methods Subject Editor

↪ since joining ASU

Petar Jevtić, Ph.D.

SERVICE (S) (CONTINUED)

McMaster University, Department of Mathematics and Statistics, Canada

Department Service

- Department Outreach Committee member (September 2016 - 2017)
- Master's admissions committee member (M-Phimac) (2015-2016)
- Advisory faculty member to McMaster Student Actuarial Society (2014 - 2017)
- Fall 2014, 2015 and 2016, the department representative at the Ontario Universities' Fair

Professional Service

- Organizing committee member for Winter 2016 Canadian Mathematical Society meeting, Actuarial and Financial Mathematics section

PROFESSIONAL CERTIFICATION

- CFA (Chartered Financial Analyst) Level II exam, passed June 2008
- CFA (Chartered Financial Analyst) Level I exam, passed June 2007
- Actuarial Exams Passed: FM (*since joining ASU*)

PH.D. THESIS

[1] Petar Jevtić, "Topics in Probability and Stochastic Modeling in Insurance, Finance and Combinatorial Optimization", *Ph.D. Thesis*, University of Turin, Turin, Italy, 2013.

AWARDS AND SCHOLARSHIPS

- December 2012, exceptional Ph.D. student reward in memory of Prof. Giovanni Galatioto, past president of the Piedmontese committee of the Italian Association of Actuaries
- Full scholarship for Ph.D studies (University of Turin, Italy)
- Full scholarship for M.S. studies (Faculty of Economics, University of Belgrade, Serbia)