

**Dr. George Petrov Yanev**  
The University of Texas Rio Grande Valley  
Full Professor  
School of Mathematical and Statistical Science  
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## **Professional Positions**

Professor, The University of Texas Rio Grande Valley. (September 1, 2018 - Present).  
Associate Professor, The University of Texas Rio Grande Valley. (September 1, 2015 - August 31, 2018).  
Associate Professor, The University of Texas - Pan American. (September 1, 2012 - August 31, 2015).  
Assistant Professor, The University of Texas - Pan American. (2008 - 2012).  
Assistant Professor, University of South Florida, Tampa. (2004 - 2008).  
Assistant Professor, University of South Florida St. Petersburg. (2001 - 2004).  
Graduate Research Associate, Center for Urban Transportation Research, USF. (1999 - 2000).  
Graduate Research Assistant, H. Lee Moffitt Cancer Research, Tampa. (1999 - 2000).  
Researcher, Institute of Mathematics and Informatics, Bulgaria. (1991 - 1996).

## **Education**

PhD, University of South Florida, 2001.  
Major: Mathematics (Statistics)  
Dissertation Title: Statistical Modeling of Epidemic Disease Propagation via Branching Processes and Bayesian Inference

PhD, University of Sofia, 1991.  
Major: Mathematical Sciences  
Dissertation Title: Branching stochastic processes, control, migration, and multiplication

MS, University of Sofia, 1986.  
Major: Mathematics

BS, University of Sofia, 1983.  
Major: Mathematics and Math Education

Maximum offspring in Galton-Watson processes (Post-doctoral Studies). Middle East Technical University, Ankara, Turkey. September 1, 1995 - May 15, 1996.

## **Licensures and Certifications**

Digital21 workshops, UTRGV College of Sciences. (August 19, 2020 - Present).  
Mentor, National Alliance for Doctoral Studies in the Mathematical Sciences. (September 2014 - Present).  
Fulbright Specialist Program, J. William Fulbright Foreign Scholarship Board. (June 2013).

## **Professional Memberships**

Bulgarian Statistical Society. (2016 - Present).  
National Alliance for Doctoral Studies in the Mathematical Sciences. (2012 - Present).

American Statistical Association. (1999 - Present).

American Mathematical Society. (1996 - Present).

## Awards and Honors

2023 COS Graduate Coordinator Excellence Award, UTRGV College of Sciences. (April 28, 2023).

Book Authorship, UTRGV honors achievement. (May 3, 2018).

Certificate of Achievement, Sustainability Program at UTRGV. (2016).

Inaugural Community Engaged Scholarship STEM Champions, UTRGV. (2015).

First Prize for Student Paper, Florida Chapter of the American Statistical Association. (2000).

First Prize, Annual Award of the Institute of Mathematics and Informatics, Bulgarian Academy of Sciences and the National Foundation for Scientific Investigations of Bulgaria. (1995).

## Consulting

Academic, Texas A&M Kingsville, Citrus Center, Weslaco, Texas. (2016 - Present).

Academic, EPA and Florida Keys National Marine Sanctuary, St. Petersburg, FL. (2001 - 2006).

## Publications

Yanev, G. (2023). Characterization of the exponential distribution via hypoexponential distributions. *Special Issue : AISC-2021 Special Collection*, 17(2), 2–11. <https://www.springer.com/journal/42519/>

Gonzalez, M., Molina, M., del Puerto, I., Yanev, G., & Yanev, N. (2021). *Controlled branching processes with continuous time*. 58(3), 830–848. <https://doi.org/10.1017/jpr.2021.8>

Garcia, I. d. P., G. P., Molina, M., Yanev, N. M., & Velasco, M. G. (2021). *Continuous-time controlled branching processes*. 74(3), 332–342. <http://www.proceedings.bas.bg/>

Yanev, G. (2020). *Exponential and hypoexponential distributions: some characterizations*. 8(12), 2020. <https://www.mdpi.com/2227-7390/8/12/2207#cite>

Kunta, M., Chavez, S., Yanev, G. P., Devanaboina, M., & Louzada, E. S. (2020). *Screening citrus genotypes for Phytophthora tolerance*. Published.

Yanev, G. P. (2020). *On Arnold-Villasenor conjectures for characterizations of exponential distribution based of samples of size three*. 18(2), 177–188. <https://www.ine.pt/revstat/inicio.html>

Chakraborty, S., & Yanev, G. P. (2018). *Characterizations of exponential distribution based on two-sided random shifts*. 17(3), 408–418. [www.atlantis-press.com/publications/jsta/index.html](http://www.atlantis-press.com/publications/jsta/index.html)

Gonzalez, M., Del Puerto, I., & Yanev, G. P. (2017). *Controlled Branching Processes* (1st ed., p. 232). Wiley-ISTE. [onlinelibrary.wiley.com/book/10.1002/9781119452973](http://onlinelibrary.wiley.com/book/10.1002/9781119452973)

Yanev, G. P. (2017). *Characterizations of exponential distribution through the bivariate regression of records values revisited*. 22(3-4), 349–356. [www.novapublishers.com/catalog/product\\_info.php?products\\_id=1714&osCsid=ccbe13e49451864f070098abaa769890](http://www.novapublishers.com/catalog/product_info.php?products_id=1714&osCsid=ccbe13e49451864f070098abaa769890)

Yanev, G. P., & Colson, R. (2017). *Monotone empirical Bayes estimators for Borel-Tanner distribution*. 27, 115–122. [www.math.bas.bg/~pliska/](http://www.math.bas.bg/~pliska/)

Louzada, E. S., Vazquez, O., Yanev, G. P., Devanaboina, M., & Kunta, M. (2016). *Distribution of Candidatus L. asiaticus above and below ground in Texas citrus*. S6-28, 78. [www.icc2016.com/abstract/book-of-abstracts](http://www.icc2016.com/abstract/book-of-abstracts)

Yanev, G. P., & Chakraborty, S. (2016). *A characterization of exponential distribution and the Sukhatme-Renyi decomposition of exponential maxima*. 110, 94–102. <https://doi.org/http://dx.doi.org/10.1016/j.spl.2015.12.004>

- Louzada, E. S., Vazquez, O., Braswell, E. W., Devanaboina, M., Yanev, G. P., & Kunta, M. (2016). *Distribution of Candidatus Liberibacter asiaticus above and below ground in Texas Citrus*. 106(7), 702–709. [apsjournals.apsnet.org/loi/phyto](http://apsjournals.apsnet.org/loi/phyto)
- Yanev, G. P. (2015). *Controlled branching processes and their relatives*. 24, 111–130.
- Vazquez, O., Louzada, E. S., Yanev, G. P., Devanaboina, M., & Kunta, M. (2015). *Distribution of 'Ca. Liberibacter asiaticus' in roots of sour orange rootstock grafted with sweet orange and in leaves of grapefruit trees*. 105. [apsjournals.apsnet.org/doi/pdf/10.1094/PHYTO-105-11-S4.1](http://apsjournals.apsnet.org/doi/pdf/10.1094/PHYTO-105-11-S4.1)
- Hull, D., Manuel, M., & Yanev, G. P. (2015). *Time to extinction in subcritical two-sex branching processes*. 17(3), 605–616.
- Mangoo-Karim, R., Abreu, J., Yanev, G. P., Perez, N., Stubbs, J., & Wetmore, J. (2015). *Ergocalciferol versus cholecalciferol for nutritional vitamin D replacement in CKD*. 130, 99–104. <https://doi.org/10.1159/000430813>
- Zeng, L., Smith, K. C., Poelzer, G., Rodriguez, J., Corpuz, E., & Yanev, G. (2014). *Illustrations and supporting texts for sound standing waves of air columns in pipes in introductory physics textbooks*. 10(2), 020110-1 – 020110-24. <https://doi.org/10.1103/PhysRevSTPER.10.020110>
- Zeng, L., Smith, K., Poelzer, G., Rodriguez, J., Corpuz, E. D. G., & Yanev, G. P. (2014). *Illustrations and supporting texts for sound standing waves of air columns in tubes in introductory physics textbooks*. 10(2), 24. <https://doi.org/10.1103/PhysRevSTPER.10.020110>
- Yanev, G. P., & Chakraborty, S. (2013). *Characterization of exponential distribution based on sample of size three*. 23, 237–244.
- Sanchez, I., Mangoo-Karim, R., Stubbs, J., Yanev, G. P., & Wetmore, J. (2013). *Racial and ethnic differences in 25-hydroxyvitamin D levels patients with chronic kidney disease*. 45, 181–189.
- Chakraborty, S., & Yanev, G. P. (2013). *Characterization of Exponential Distribution through Equidistribution Conditions for Consecutive Maxima*. 2(3), 237–242. <https://doi.org/10.12785/jsap/020306>
- Ahsanullah, M., Shah, I. A., & Yanev, G. P. (2012). *Characterizations of exponential distribution through random translations of ordered variables*. 2(3), 223–227.
- Ahsanullah, M., Yanev, G. P., & Onica, C. (2012). *Characterizations of logistic distribution through order statistics with independent exponential shifts*. 27, 85–96.
- Yanev, G. P., & Ahsanullah, M. (2012). *Characterizations of Student's distribution via regressions of order statistics*. 46(4), 429–435.
- Yanev, G. P. (2012). *Characterizations via regression of one record value on two non-adjacent record values*. 75, 743–760.
- Rahimov, I., & Yanev, G. P. (2012). *Variance Estimators in Critical Branching Processes With Non-Homogeneous Immigration*. 19(4), 188–199. <https://doi.org/10.1080/08898480.2012.718941>
- Yanev, G. P. (2011). *Some characterizations of class of distributions including logistic by properties of order statistics*. 18, 297–305.
- Yanev, G. P. (2011). *Statistical changes of lake stages in two rapidly urbanizing watersheds*. 25, 21–39.
- Yanev, G. P. (2010). Extension of the problem of extinction on Galton-Watson family trees. In G. V. et al. (Ed.), *Workshop on Branching Processes and Their Applications* (pp. 79–94). Lecture Notes in Statistics – Proceedings 197.
- Yanev, G. P. (2009). *On characterizations based on regression of linear combinations of records*. 71-A, 109–121.
- Yanev, G. P. (2009). *Polyphasic wake/sleep episodes in the fire ant, Solenopsis invicta*. 22, 313–323.
- Ahsanullah, M., & Yanev, G. P. (2009). *Records and Branching Processes*. NOVA Science. [www.novapublishers.com/catalog/](http://www.novapublishers.com/catalog/)

- Somerfield, P., & Yanev, G. P. (2008). *Changes in coral reef communities among the Florida Keys*. 27, 951–965.
- Yanev, G. P., Ahsanullah, M., & Beg, M. I. (2008). *Characterizations of probability distributions via bivariate regression of record values*. 68, 51–64.
- Yanev, G. P., & Hasan, H. (2008). *On randomly bounded size families in branching processes*. 3, 146–162.
- Yanev, G. P. (2007). *Borel-Tanner distribution: empirical Bayes modification of the MLE under LINEX loss*. 15, 27–33.
- Yanev, G. P., & Mutafchiev, L. (2006). *Number of complete N-ary subtrees on Galton-Watson family trees*. 8, 223–233.
- Yanev, G. P., & Yanev, N. M. (2004). *A critical branching process with stationary- limiting distribution*. 22, 721–738.
- Yanev, G. P., Mitov, K. V., & Yanev, N. M. (2003). *Critical branching regenerative processes with migration*. 12, 41–54.
- Mitov, K., Pakes, A., & Yanev, G. P. (2003). *Extremes of geometric variables with applications to branching processes*. 65, 379–388. <http://www.journals.elsevier.com/statistics-and-probability-letters/>
- Yanev, G. P., & Mitov, K. V. (2002). *Maximum individual score in critical two-type branching processes*. 55(11), 17–22.
- Yanev, G. P., & Tsokos, C. (2000). *Family size order statistics in branching processes with immigration*. Published.
- Rahimov, I., & Yanev, G. P. (1999). *On the maximum family size in branching processes*. 36(3), 632–643.
- Yanev, G. P., & Yanev, N. (1997). Limit theorems for branching processes with random migration stopped at zero. In *Classical and Modern Branching Processes. IMA Volumes in Math and its Applications 84: Vol. 84* (pp. 323–336). Springer.
- Yanev, G. P., & Yanev, N. (1996). Branching processes with two types emigration and state-dependent immigration. In *Applied Probability, Lecture Notes in Statistics: Vol. 114* (pp. 216–228). Springer.
- Yanev, G. P., & Yanev, N. (1995). Critical branching processes with random migration. In *Branching Processes, Lecture Notes in Statistics: Vol. 99* (pp. 36–46). Springer.

## Presentations

- Yanev, G. P., Mathematics Days in Sofia: Numerical Analysis, Operation Research, Probability and Statistics, "Characterization Properties of Exponential Distribution," Bulgarian Academy of Sciences and University of Sofia, Sofia, Bulgaria. (July 13, 2023).
- Yanev, G. P., Mathematics Days in Sofia: Mini-symposium "Advances in Stochastics", "Branching Processes with Migration Subordinated by Renewal Process," Bulgarian Academy of Sciences and University of Sofia, Sofia, Bulgaria. (July 12, 2023).
- Yanev, G. P., 3rd International Workshop on Stochastic Processes and their Applications, "Empirical Bayes estimation of epidemic reproduction number via branching processes and generalized Poisson distribution," Spanish Society for Statistics and Operations Research, Virtual. (January 19, 2023).
- Yanev, G. P., International Conference on Statistical Distributions and Applications, "Empirical Bayes Estimators of Epidemic Reproduction Number," Marshall University, WV, Huntington, WV. (October 14, 2022).
- Yanev, G. P., International Conference on Statistical Distributions and Applications, "Exponential and Hypoexponential Distributions: Some Characterizations," Marshall University, WV, Huntington, WV. (October 14, 2022).
- Martín-Chávez, P. (Author & Presenter), Velasco, M. G. (Author), Yanev, G. P. (Author), Garcia, I. M. del Puerto (Author), 39th Spanish Conference on Statistics and Operation Research, "Continuous state controlled branching processes," University of Grenada, Spain, Online. (June 8, 2022).

- Yanev, G., International Conference on Advances in Interdisciplinary Statistics and Combinatorics, "Exponential and Hypoexponential Distributions: Some Characterizations," University of North Carolina at Greensboro, ZOOM. (October 9, 2021).
- Yanev, G., Fifth International Workshop on Branching Processes and Applications, "Branching processes with migration subordinated by renewal process," University of Extremadura, Spain, Virtual. (April 15, 2021).
- Yanev, G., Probability Seminar of the Warsaw University of Technology, "On characterizations of the exponential distribution," Warsaw University of Technology, Virtual. (March 9, 2021).
- Yanev, G., SMSS Probability and Statistics Seminar, "Characterizations of exponential distribution," SMSS, Edinburg, TX. (February 26, 2021).
- Yanev, G., Third International Conference on Statistical Distributions and Applications, University of Central Michigan, Grand Rapids, Michigan. (October 11, 2019).
- Devanaboina, M. (Author & Presenter), Yanev, G. P. (Author & Presenter), American Phytopathological Society's Annual Meeting, Cleveland, OH. (August 3, 2019).
- Yanev, G. (Author), Texas A&M Kingsville Eight Annual Statistics Days, "Characterizations of exponential distribution," Texas A&M University Kingsville, Kingsville, TX. (April 27, 2019).
- Yanev, G. P., University of Extremadura (Spain) Colloquium Talk, "Necessary and sufficient conditions for (characterizations of) exponential probability distribution," University of Extremadura, Badajoz, Spain. (April 3, 2019).
- Yanev, G. P., UT Dallas Mathematical Sciences Colloquium, "Necessary and sufficient conditions for (characterizations of) exponential probability distribution," UT Dallas, Dallas, TX. (February 22, 2019).
- Yanev, G. P., North Texas Section of the American Statistical Association, "On Characterizations of Exponential Probability Distribution," North Texas Chapter of the American Statistical Association, Southern Methodist University, Dallas, TX. (February 21, 2019).
- Chakraborty, S., Yanev, G. P., Joint Mathematical Meeting, "Characterizations of Exponential Distributions based on Two-Sided Random Shifts," American Mathematical Society, Baltimore, Maryland. (January 19, 2019).
- Yanev, G., Computational Biology at UTRGV, "Why Statistics?," University of Texas Rio Grande Valley, Edinburg, TX. (November 8, 2018).
- Yanev, G. P., International Conference on Advances in Interdisciplinary Statistics and Combinatorics, "Borel-Tanner distribution and Bayes estimators for the basic reproduction number of an epidemic," University of North Carolina Greensboro, Greensboro, NC. (October 5, 2018).
- Yanev, G. P., XVIIIth International Summer Conference on Probability and Statistics, Workshop on Branching Processes and Applications, "Estimation in a class of controlled branching processes," Bulgarian Academy of Sciences, Pomorie, Bulgaria. (June 25, 2018).
- Yanev, G. P., Seventh Annual Statistics Day, "Estimators for partially observed branching processes with immigration," Texas A & M - Kingsville, Kingsville, TX. (February 16, 2018).
- Yanev, G. P. (Author), Sixth Annual Statistics Day, "Characterizations of Exponential Distribution Based on Random Shifts," Texas A&M University - Kingsville, Kingsville, TX. (April 21, 2017).
- Louzada, E. S. (Author & Presenter), Vazquez, O. (Author), Yanev, G. P., Devanaboina, M., Kunta, M. (Author), International Citrus Congress, "Distribution of *Candidatus L. asiaticus* above and below ground in Texas citrus.," Foz Do Iguaçu, Brazil. (2016).
- Yanev, G. P., XVIIIth International Summer Conference on Probability and Statistics, Workshop on Branching Processes and Applications, "Monotone empirical Bayes estimators for the reproduction parameter of Borel-Tanner distributions." (June 27, 2016).
- Yanev, G. P., Chakraborty, S., 12th International Conference on Ordered Statistical Data, "New characterizations of exponential distribution," University of Piraeus, Greece, Athens, Greece. (May 26, 2016).

- Yanev, G. P., Fifth Annual Statistics Day, "On Empirical Bayes Estimators for the Reproduction Number of Epidemics," Texas A&M University - Kingsville, Kingsville, TX. (April 22, 2016).
- Yanev, G. P., Teaching Development or Teaching-Related Research Workshop, "Some Analogies Useful for Teaching Statistics," SMSS at UTRGV, Edinburg, TX. (April 2, 2016).
- Yanev, G. P., S-STEM Scholarship Recipient Meeting, "Why Statistics?," NSF Grant. (March 29, 2016).
- Yanev, G. P., STITCH Symposium, "Ethnic differences in vitamin D levels and response to treatment of patients with chronic kidney disease," UTRGV School of Medicine, McAllen, TX. (March 24, 2016).
- Yanev, G. P., Probability and Statistics Seminar, "Monotone empirical Bayes estimators for the," SMSS at UTRGV, Edinburg, TX. (February 12, 2016).
- Chakraborty, S., Yanev, G. P., 9th Calcutta Triennial Conference, "Some Recent Results on Characterization of Exponential Distribution based on Maximum Order Statistics," Calcutta Statistical Association, Calcutta, India. (December 28, 2015).
- Chakraborty, S., Yanev, G. P., International Indian Statistical Association Conference, "A Characterization of Exponential Distribution and the Sukhatme-Renyi Decomposition of Exponential Maxima," International Indian Statistical Association, Pune, India. (December 22, 2015).
- Yanev, G. P., National Stochastic Seminar, Institute of mathematics and Informatics, "On some new characterizations of the exponential distribution," Bulgarian Academy of Sciences, Sofia, Bulgaria. (June 2, 2015).
- Yanev, G. P., Third Workshop on Branching Processes and Their Applications,, "Revisiting Limit Results for Controlled Branching Processes," University of Extremadura, Spain, Badajoz, Spain. (April 10, 2015).
- Yanev, G. P. (Author & Presenter), International Conference "Mathematics Days in Sofia", "On Controlled Branching Processes," Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Sofia, Bulgaria. (July 7, 2014).
- Yanev, G. P. (Author & Presenter), XVIth International Summer Conference on Probability and Statistics, Workshop on Branching Processes and Applications, "Controlled Branching Processes and their Relatives," Institute of Mathematics and Informatics, Bulgarian Academy of Sciences, Pomorie, Bulgaria. (June 22, 2014).
- Yanev, G. P., 11th International Conference on Ordered Statistical Data, "Characterization of exponential distribution through record values and associated beta distribution," Polish Academy of Sciences, Bedlewo, Poland. (June 5, 2014).
- Yanev, G. P., Third Statistics Day, Texas A & M University - Kingsville, Kingsville, Texas. (April 25, 2014).
- Yanev, G. P. (Author & Presenter), Ordered Data Analysis, Models, and Health Research Methods, "Characterization of Exponential Distribution through Regression of Record Values," The University of Texas at Dallas, Richardson, Texas. (March 7, 2014).
- Yanev, G. P., International Conference on Mathematical Methods and Models in Biosciences, "Variance Estimators in Branching Processes with Non-Homogeneous Immigration," Sofia, Bulgaria. (June 2013).
- Yanev, G. P., University of Texas Brownsville, Math Colloquium, "Variance Estimators in Branching Processes with Non-Homogeneous Immigration." (May 3, 2013).
- Yanev, G. P., 2012 International Conference on Stochastic Processes in System Biology, "Offspring Variance Estimators in Branching Processes with Time Non-Homogeneous Immigration," Rice University, Houston. (August 21, 2012).
- Yanev, G. P., XVth International Summer Conference on Probability and Statistics, Workshop on Branching Processes and Applications, "Extinction time in branching processes with mating. XVth International Summer Conference on Probability and Statistics," Pomorie, Bulgaria. (June 23, 2012).
- Yanev, G. P., Conference on Innovative Classroom Practices in STEM Education, "Using R in Undergraduate Statistical Classes," Department of Mathematics, UTPA, Edinburg, Texas. (April 21, 2012).

- Yanev, G. P., Workshop: Statistics Applications in our Community, "Statistical Analysis of Clinical Data on Vitamin D Deficiency in Hispanic Patients with Diabetes," UTPA. (April 27, 2011).
- Yanev, G. P., American Society of Nephrology Meeting,, "Ethnic Differences in Response to Ergocalciferol Therapy in Chronic Kidney Disease," Philadelphia, PA. (November 8, 2010).
- Yanev, G. P., First Workshop on Branching Processes and Their Applications,, "Extension of the problem of extinction on Galton-Watson family trees," University of Extremadura, Spain, Badajoz, Spain. (April 23, 2009).
- Yanev, G. P. (Author), Mathematical Sciences within Society, "On the Number of Families of Branching Processes with Immigration in a Random Interval," Malaysia. (November 27, 2007).

## **Contract, Fellowships, Grants and Sponsored Research**

- Huber, T. (PI), Sifuentes, J. (Co-PI), Yanev, G. (Co-PI), Bhatta, D. (Co-PI), "Pathways to Graduate School and Professional Careers in the Mathematical Sciences," Sponsored by National Science Foundation, Federal, \$636,071.00. (June 2015 - May 2021).
- Huber, T. (PI), Pierce, V. U. (Co-PI), Yanev, G. (Co-PI), Bhatta, D. (Co-PI), Roy, R. (Co-PI), "Pathways to Graduate School and Professional Careers in the Mathematical Sciences," Sponsored by NSF-SSTEM, Federal, \$636,071.00. (June 2015 - May 2021).
- Yanev, G. P. (Researcher), Velasco, M. G. (Co-PI), Medina, M. M. (Co-PI), "MTM2015-70522-P Population Stochastic Processes in System Biology, Genetics and Epidemiology," Sponsored by Ministerio de Economia y Competitividad, Spain, Other, \$78,700.00. (January 1, 2016 - December 31, 2019).
- Yanev, G. P. (Researcher), Bojkova, M. (PI), "Fundamental scientific investigations on stochastic branching processes – limiting behavior, statistical inferences and applications," Sponsored by Ministry of Education and Science of Bulgaria, Bulgaria, Other, \$40,000.00. (April 10, 2015 - June 30, 2018).
- Yanev, G. P. (PI), "Faculty Developing Funding Program Award," The University of Texas Rio Grande Valley, \$1,803.00. (September 2015 - December 2015).
- Yanev, G. P. (PI), "Fulbright Specialist grant in Public/Global Health," Sponsored by Fulbright, Foundation, \$3,200.00. (June 2013).
- Yanev, G. P., "UTPA Undergraduate Research Initiative," Sponsored by UTPA Research Initiative, The University of Texas Rio Grande Valley, \$2,000.00. (2009 - 2010).
- Yanev, G. P. (PI), "Research and Development Grant, Spring 2006 for attending the Spring Meeting of the International Biometric Society," Sponsored by Eastern North American Region, Local. (March 2006).

## **Research Activity**

- "Partially observed non-supercritical branching processes with non-stationary immigration" (On-Going).
- "Time to extinction in critical and supercritical two-sex branching processes" (On-Going).

## **Teaching Experience**

- STAT 2334, section 01R, Applied Statistics for Health. 3 credit hours. 32 enrolled.
- UNIV 6100, section 03, Comp Exam Ext. 1 credit hours. 0 enrolled.
- MATH 6391, section 03, Master's Project. 3 credit hours. 2 enrolled.
- STAT 3337, section 01R, Probability & Statistics. 3 credit hours. 38 enrolled.
- MATH 7300, section 05, Thesis I. 3 credit hours. 1 enrolled.
- STAT 6390, section 01, Internship. 3 credit hours. 2 enrolled.
- MATH 7100, section 05, Thesis Extension. 1 credit hours. 1 enrolled.

MATH 8379, section 01, Advanced Stochastic Processes. 3 credit hours. 3 enrolled.  
STAT 6390, section 01, Internship. 3 credit hours. 1 enrolled.  
MATH 4390, section 30, Math Project. 3 credit hours. 1 enrolled.  
STAT 6379, section 01, Stochastic Processes. 3 credit hours. 14 enrolled.  
STAT 6379, section 90L, Stochastic Processes. 3 credit hours. 3 enrolled.  
MATH 7301, section 07, Thesis II. 3 credit hours. 1 enrolled.  
STAT 2334, section 01R, Applied Statistics for Health. 3 credit hours. 39 enrolled.  
STAT 6390, section 01, Internship. 3 credit hours. 4 enrolled.  
STAT 4399, section 90L, Special Topics in Statistics. 3 credit hours. 12 enrolled.  
MATH 7300, section 05, Thesis I. 3 credit hours. 2 enrolled.  
MATH 6390, section 01, Internship. 3 credit hours. 4 enrolled.  
STAT 3301, section 1, Applied Statistics. 3 credit hours. 32 enrolled.  
STAT 3301, section 2, Applied Statistics. 3 credit hours. 30 enrolled.  
MATH 6390, section 1, Internship. 3 credit hours. 1 enrolled.  
MATH 6391, section 3, Master's Project. 3 credit hours. 2 enrolled.  
STAT 3337, section 1, Probability & Statistics. 3 credit hours. 36 enrolled.  
MATH 1342, section 12, Elementary Statistical Methods. 43 enrolled.  
MATH 6390, section 1, Internship. 3 credit hours. 1 enrolled.  
MATH 1343, section 1, Intro to Biostatistics. 3 credit hours. 43 enrolled.  
MATH 1343, section 3, Intro to Biostatistics. 3 credit hours. 43 enrolled.  
MATH 6364, section 90L, Statistical Methods. 3 credit hours. 15 enrolled.  
STAT 3301, section 90L, Applied Statistics. 28 enrolled.  
MATH 1342, section 92L, Elementary Statistical Methods. 18 enrolled.  
MATH 1342, section 96L, Elementary Statistical Methods. 16 enrolled.  
STAT 3337, section 90L, Probability & Statistics. 28 enrolled.  
MATH 6390, section 90L, Internship. 3 credit hours. 2 enrolled.  
MATH 7301, section 91L, Thesis II. 3 credit hours. 1 enrolled.  
STAT 2334, section 90L, Applied Statistics for Health. 3 credit hours. 16 enrolled.  
MATH 2318, section 90L, Linear Algebra. 3 credit hours. 28 enrolled.  
MATH 7300, section 90L, Thesis I. 3 credit hours. 1 enrolled.  
MATH 1314, section 83P, College Algebra. 3 credit hours. 40 enrolled.  
MATH 1314, section 97P, College Algebra. 3 credit hours. 37 enrolled.  
MATH 1342, section 83L, Elementary Statistical Methods. 3 credit hours. 55 enrolled.  
MATH 1343, section 93L, Intro to Biostatistics. 3 credit hours. 38 enrolled.  
MATH 1343, section 94L, Intro to Biostatistics. 3 credit hours. 37 enrolled.  
STAT 3337, section 01, Probability & Statistics. 3 credit hours. 26 enrolled.



MATH 1343, section 3, Intro to Biostatistics. 3 credit hours. 29 enrolled.

MATH 4390, section 9, Math Project. 3 credit hours. 2 enrolled.

STAT 3338, section 1, Mathematical Statistics. 3 credit hours. 8 enrolled.

MATH 1342, section 3, Elementary Statistical Methods. 117 enrolled.

STAT 3337, section 01I, Probability & Statistics. 29 enrolled.

STAT 3337, section 03I, Probability & Statistics. 21 enrolled.

STAT 3337, section 2, Probability & Statistics. 31 enrolled.

STAT 3335, section 01I, Applied Regression Analysis. 2 enrolled.

STAT 3335, section 02I, Applied Regression Analysis. 0 enrolled.

STAT 2334, section 01I, Applied Statistics for Health. 7 enrolled.

STAT 2334, section 02I, Applied Statistics for Health. 3 enrolled.

MATH 2412, section 1, Precalculus. 4 credit hours. 11 enrolled.

MATH 7301, section 6, Thesis II. 3 credit hours. 1 enrolled.

STAT 2334, section 1, Applied Statistics for Health. 3 credit hours. 23 enrolled.

MATH 1342, section 3, Elementary Statistical Methods. 3 credit hours. 31 enrolled.

MATH 7301, section 7, Thesis II. 3 credit hours. 1 enrolled.

STAT 2334, section 1, Applied Statistics for Health. 3 credit hours. 27 enrolled.

STAT 2334, section 3, Applied Statistics for Health. 3 credit hours. 16 enrolled.

MATH 1343, section 1, Intro to Biostatistics. 3 credit hours. 27 enrolled.

MATH 1343, section 70, Intro to Biostatistics. 3 credit hours. 29 enrolled.

MATH 7301, section 3, Thesis II. 3 credit hours. 1 enrolled.

STAT 2334, section 01I, Applied Statistics for Health. 3 enrolled.

STAT 2334, section 02I, Applied Statistics for Health. 3 enrolled.

MATH 1342, section 5, Elementary Statistical Methods. 1 enrolled.

MATH 7300, section 3, Thesis I. 1 enrolled.

STAT 2334, section 01, Applied Statistics for Health. 3 credit hours. 23 enrolled.

MATH 3399, section 01, Special Topics in Math. 3 credit hours. 2 enrolled.

MATH 6364, section 01I, Statistical Methods. 3 credit hours. 4 enrolled.

MATH 6364, section 90L, Statistical Methods. 3 credit hours. 11 enrolled.

STAT 2334, section 01, Applied Statistics for Health. 3 credit hours. 24 enrolled.

STAT 2334, section 03, Applied Statistics for Health. 3 credit hours. 16 enrolled.

MATH 6365, section 01I, Probability & Statistics. 3 credit hours. 6 enrolled.

MATH 6365, section 95L, Probability & Statistics. 3 credit hours. 9 enrolled.

MATH 4337, section 1, Probability & Statistics I. 3 credit hours. 24 enrolled.

MATH 4338, section 1, Probability & Statistics II. 3 credit hours. 9 enrolled.

MATH 6364, section 01I, Statistical Methods. 3 credit hours. 4 enrolled.

MATH 6364, section 90L, Statistical Methods. 3 credit hours. 14 enrolled.

MATH 2334, section 1, Applied Stats for Health. 3 credit hours. 30 enrolled.

MATH 2334, section 3, Applied Stats for Health. 3 credit hours. 20 enrolled.

MATH 4390, section 5, Math Project. 3 credit hours. 1 enrolled.

MATH 2334, section 1, Applied Stats for Health. 3 credit hours. 16 enrolled.

MATH 2334, section 2, Applied Stats for Health. 3 credit hours. 25 enrolled.

MATH 4338, section 1, Probability & Statistics II. 3 credit hours. 15 enrolled.

MATH 1343, section 3, Intro to Biostatistics. 3 credit hours. 29 enrolled.

MATH 4337, section 1, Probability & Statistics I. 3 credit hours. 30 enrolled.

MATH 4337, section 2, Probability & Statistics I. 3 credit hours. 30 enrolled.

MATH 6366, section 01, Mathematical Stats. 3 credit hours. 9 enrolled.

MATH 4336, section 01, Sampling. 3 credit hours. 6 enrolled.

MATH 6399, section 01, Sp Top:Advanced Sampling. 3 credit hours. 18 enrolled.

MATH 1470, section 05, Calculus II. 4 credit hours. 30 enrolled.

MATH 1340, section 32, College Algebra. 3 credit hours. 30 enrolled.

MATH 6364, section 01, Statistical Methods. 3 credit hours. 17 enrolled.

MATS 3301, section 02, Applied Stat for COMD. 3 credit hours. 29 enrolled.

MATH 4339, section 01, Probab and Statistics I. 3 credit hours. 30 enrolled.

MATH 4339, section 02, Probab and Statistics I. 3 credit hours. 30 enrolled.

MATH 1470, section 2, Calculus II. 4 credit hours. 36 enrolled.

MATH 2330, section 2, Elementary Stat & Prob. 3 credit hours. 10 enrolled.

STAT 2330, section 2, Elementary Stat & Prob. 3 credit hours. 6 enrolled.

MATH 7301, section 1, Master Thesis II. 3 credit hours. 1 enrolled.

MATS 3301, section 2, Applied Stat for COMD. 3 credit hours. 29 enrolled.

MATH 2330, section 7, Elementary Stat & Prob. 3 credit hours. 14 enrolled.

STAT 2330, section 7, Elementary Stat & Prob. 3 credit hours. 18 enrolled.

MATH 7301, section 4, Master Thesis II. 3 credit hours. 1 enrolled.

MATH 4336, section 1, Sampling. 3 credit hours. 11 enrolled.

MATH 1340, section 103, College Algebra. 3 credit hours. 28 enrolled.

MATH 7300, section 4, Master Thesis I. 3 credit hours. 1 enrolled.

MATH 1450, section 1, Precalculus with Trig. 4 credit hours. 39 enrolled.

MATH 6365, section 1, Probability and Stat. 3 credit hours. 9 enrolled.

MATH 1460, section 2, Calculus I. 4 credit hours. 18 enrolled.

MATH 4339, section 1, Probab and Statistics I. 3 credit hours. 25 enrolled.

MATH 1334, section 04Q, Intermediate Algebra. 3 credit hours. 18 enrolled.

MATH 4391, section 4, Mathematics Research. 3 credit hours. 1 enrolled.

MATH 4339, section 1, Probab and Statistics I. 3 credit hours. 26 enrolled.

MATH 4336, section 1, Sampling. 3 credit hours. 18 enrolled.

MATH 1470, section 5, Calculus II. 4 credit hours. 40 enrolled.

EMAT 2306, section 3, Foundations of Math I. 3 credit hours. 28 enrolled.

MATH 6365, section 1, Probability and Stat. 3 credit hours. 23 enrolled.

MATH 2330, section 1, Elementary Stat & Prob. 3 credit hours. 32 enrolled.

STAT 2330, section 1, Elementary Stat & Prob. 3 credit hours. 8 enrolled.

MATH 4339, section 1, Probab and Statistics I. 3 credit hours. 28 enrolled.

MATH 3338, section 1, Applied Statistics II. 3 credit hours. 21 enrolled.

STAT 3338, section 1, Applied Statistics II. 3 credit hours. 2 enrolled.

MATH 4339, section 1, Probab and Statistics I. 3 credit hours. 30 enrolled.

MATH 4339, section 2, Probab and Statistics I. 3 credit hours. 29 enrolled.

MATH 3337, section 1, Applied Statistics I. 3 credit hours. 46 enrolled.

STAT 3337, section 1, Applied Statistics I. 3 credit hours. 3 enrolled.

MATH 2330, section 11, Elementary Stat & Prob. 3 credit hours. 48 enrolled.

MATH 2330, section 9, Elementary Stat & Prob. 3 credit hours. 42 enrolled.

STAT 2330, section 11, Elementary Stat & Prob. 3 credit hours. 14 enrolled.

STAT 2330, section 9, Elementary Stat & Prob. 3 credit hours. 15 enrolled.

MATH 1460, section 1, Calculus I. 43 enrolled.

MATH 4339, section 1, Probab and Statistics I. 29 enrolled.

MATH 2330, section 1, Elementary Stat & Prob. 20 enrolled.

MATH 2330, section 12, Elementary Stat & Prob. 33 enrolled.

MATH 2330, section 3, Elementary Stat & Prob. 16 enrolled.

STAT 2330, section 1, Elementary Stat & Prob. 8 enrolled.

STAT 2330, section 3, Elementary Stat & Prob. 12 enrolled.

MATH 2330, section 2, Elementary Stat & Prob. 33 enrolled.

MATH 2330, section 7, Elementary Stat & Prob. 29 enrolled.

MATH 2330, section 9, Elementary Stat & Prob. 33 enrolled.

STAT 2330, section 2, Elementary Stat & Prob. 7 enrolled.

STAT 2330, section 7, Elementary Stat & Prob. 2 enrolled.

STAT 2330, section 9, Elementary Stat & Prob. 5 enrolled.

MATH 2330, section 2, Elementary Stat & Prob. 40 enrolled.

STAT 2330, section 2, Elementary Stat & Prob. 22 enrolled.

MATH 1334, section 2, Intermediate Algebra. 27 enrolled.

MATH 4339, section 1, Probab and Statistics I. 59 enrolled.

MATH 1460, section 5, Calculus I. 28 enrolled.

MATH 4339, section 2, Probab and Statistics I. 32 enrolled.  
MATH 2330, section 10, Elementary Stat && Prob. 33 enrolled.  
MATH 2330, section 11, Elementary Stat && Prob. 13 enrolled.  
STAT 2330, section 10, Elementary Stat && Prob. 13 enrolled.  
STAT 2330, section 11, Elementary Stat && Prob. 8 enrolled.  
MATH 2387, section 1, Prob && Stat - Honors. 13 enrolled.  
MATH 6365, section 1, Probability and Stat. 14 enrolled.  
MATH 1340, section 8, College Algebra. 31 enrolled.  
MATH 2330, section 3, Elementary Stat && Prob. 25 enrolled.  
STAT 2330, section 3, Elementary Stat && Prob. 5 enrolled.  
MATH 2330, section 5, Elementary Stat && Prob. 17 enrolled.  
MATH 2330, section 6, Elementary Stat && Prob. 18 enrolled.  
STAT 2330, section 5, Elementary Stat && Prob. 18 enrolled.  
STAT 2330, section 6, Elementary Stat && Prob. 18 enrolled.  
MATH 2330, section 1, Elementary Stat && Prob. 26 enrolled.  
MATH 2330, section 2, Elementary Stat && Prob. 22 enrolled.  
STAT 2330, section 1, Elementary Stat && Prob. 9 enrolled.  
STAT 2330, section 2, Elementary Stat && Prob. 9 enrolled.

### **Directed Student Learning**

Master's Thesis Committee Chair, "Estimation of Partially Observed Branching Processes," School of Mathematical and Statistical Science. (September 1, 2022 - Present).  
Advised: Allan Martinez

Graduate Capstone/Senior Project, "PRACTICE EXAMS WITH SOLUTIONS FOR THE ACTUARIAL EXAM P/1: Probability," School of Mathematical and Statistical Science. (January 2022 - May 2022).  
Advised: Dennis Garcia

Master's Thesis Committee Chair, "Empirical Bayes Estimates for the Reproduction Number of Epidemics," School of Mathematical and Statistical Science. (September 2020 - August 2021).  
Advised: Elijah Hight

Master's Thesis Committee Chair, "On Monotone Empirical Bayes Estimation for Borel-Tanner Distribution," School of Mathematical and Statistical Science. (August 2018 - August 2019).  
Advised: Celestina Soltero

Master's Thesis Committee Member, "Quantification of viable *Candidatus Liberibacter Asiaticus* in citrus leaves and screening citrus genotypes for resistance against *Phytophthora Nicotianae*," Other (outside UTRGV). (September 2016 - August 2019).  
Advised: Sandy Chavez

Master's Thesis Committee Member, "Disease modeling using fractional differential equations and estimation," School of Mathematical and Statistical Science. (August 2016 - August 2017).  
Advised: Daniel Medina

Master's Thesis Committee Member, "Multi-type branching processes model of nosocomial epidemic," School of Mathematical and Statistical Science. (August 2016 - August 2017).  
Advised: Zeinab Mohamed

Master's Thesis Committee Member, School of Mathematical and Statistical Science. (August 2015 - August 2016).  
Advised: Miguel Cerna

Master's Thesis Committee Member, "A comparative study and data analysis for the ultimate fighting championship," School of Mathematical and Statistical Science. (August 2015 - August 2016).  
Advised: Victor Villalpando

Master's Thesis Committee Member, "Opinion formation about childhood immunization and disease spread on networks," School of Mathematical and Statistical Science. (August 2015 - May 2016).  
Advised: Shan Zhao

Master's Thesis Committee Chair, "An Empirical Study of Some Branching Processes with Upper Barrier," School of Mathematical and Statistical Science. (August 2013 - August 2014).  
Advised: Alejandro Aguilar

Master's Thesis Committee Member, "Prediction of Time-to-graduation for STEM Hispanic Undergraduate Students," Mathematics (UTPA). (August 15, 2014).  
Advised: Gejun Zhu

Graduate Capstone/Senior Project, "Statistical Modeling of Family Size and Estimation of Childless Families' Proportion," Mathematics (UTPA). (December 2012).  
Advised: Edgar Ortega

Graduate Capstone/Senior Project, "Students' Goals," Mathematics (UTPA). (December 2012).  
Advised: Hilda Altamirano

Graduate Capstone/Senior Project, "Passenger Car Mileage," Mathematics (UTPA). (December 2012).  
Advised: Teresa Ortiz

Master's Thesis Committee Member, "Zero Inflated Exponential Distribution and It's Variants," Mathematics (UTPA). (August 2011).  
Advised: Sougata Dhar

Master's Thesis Committee Member, "Collapsing of Non Homogeneous Markov Chains," Mathematics (UTPA). (August 16, 2011).  
Advised: Agnish Dey

Master's Thesis Committee Member, "Identification of Parameters and the Distribution of the Maximum and the Minimum," Mathematics (UTPA). (August 2010).  
Advised: Lijuan Bi

Undergraduate Supervised Research, "Statistical Analysis of Activity/Inactivity Data for Queens in the Fire Ant, *Solenopsis invicta*," Biology (UTPA). (August 2009 - August 2010).  
Advised: Dyanira Jimenez

Dissertation Co-Chair, "Parametric, Non-Parametric and Statistical Modeling of Stony Coral Reef Data," Other (outside UTRGV). (May 10, 2008).  
Advised: Armando Hoare

Dissertation Co-Chair, "Theory of Records and Applications," Other (outside UTRGV). (September 1, 2004 - December 15, 2007).  
Advised: Alfred Mbah

### **Non-Credit Instruction Taught**

Guest Lecture, Center for Vector-Born Disease at UTRGV, 27 participants. (May 12, 2021).

### **Faculty Development Activities Attended**

Continuing Education Program, "AIM-AHEAD Professional Development Program," NIH, <https://connect.aim-ahead.net/member/dashboard>. (September 2022 - November 2022).

Workshop, "From LaTeX to RMarkdown: Communication and Collaboration Tools for the Mathematical Sciences," American Mathematical Society. (April 6, 2022 - April 8, 2022).

Workshop, "Machine Learning Foundations: A Hands-on Introduction," American Statistical Association, ZOOM. (October 5, 2021 - October 7, 2021).

Workshop, "Presenting Data and Information," Instructor: Edward Tufte, Austin, State, USA. (January 27, 2020).

Workshop, "New Faculty Mentors Program," University of Texas Rio Grande Valley, Edinburg, Texas, United States. (2017 - 2018).

Workshop, "Associate to Full," UTRGV, Edinburg, Texas, USA. (2015 - 2016).

Workshop, "Applying the QM Rubric (APPQMR). Design Standards for Online and Blended Courses.," UTRGV, Harlingen, Texas, USA. (August 19, 2016).

Workshop, "New Faculty Mentors Program," UTRGV, Edinburg, Texas, USA. (2014 - 2015).

Tutorial, "Bayesian Methods for Clinical Trials in the 21st Century: An Interactive Tutorial," American Statistical Association, Washington, DC, USA. (November 4, 2015 - November 6, 2015).

Webinar, "Probability and statistics with R," Pearson. (November 2014).

Workshop, "Sin Fronteras Workshop," UTRGV, EDinburg, Texas, USA. (November 2014).

Webinar, "Inverted Statistics," Pearson. (October 2014).

Webinar, "Acrobatiq Intelligent Courseware for Probability and Statistics," Carnegie Mellon University. (February 2014).

Workshop, "Research experience for undergraduates in CSU Fresno," UTPA, Edinburg, Texas. (February 1, 2013).

Workshop, "Engage students, Explore apps, Interactive books, and Multi-touch textbooks," UTPA, Edinburg, Texas. (November 28, 2012).

Webinar, "Rethinking probability in the introductory statistics course," California Polytechnic University. (October 17, 2012).

Workshop, "Carnegie Mellon's Open Learning Initiative (OLI)," UTB, Brownsville, Texas. (September 26, 2012).

## **University Service**

Committee Member, University Graduate Committee. (2018 - 2021).

Faculty member in the research team, HESTEC Longitudinal Study. (2014 - 2018).

Committee Member, R Users Club. (2014 - 2015).

Statistical Consultant, Statistics Consulting Center. (2008 - 2015).

Committee Member, UTPA Library Committee. (2011 - 2014).

Committee Member, Ad Hoc Committee with the Faculty Senate to Revise HOP 6.7.2 Short Course Guidelines. (2009).

## **Professional Service**

Editor, Associate Editor, Research in Statistics, Taylor and Francis Online, ISSN: 2768-4520. (2022 - Present).

Editor, Associate Editor, Mathematics, Computer Science and Education, Veliko Tarnovo. (November 2018 - Present).

Editor, Journal Editor, Stochastics and Quality Control. (2013 - Present).

Editor, Associate Editor, J. Statistics Applications and Probability. (2012 - Present).

Editor, Associate Editor, Journal of Statistical Theory and Applications. (2007 - Present).

Reviewer, Ad Hoc Reviewer, Communications in Statistics - Simulation and Calculation. (February 2021 - March 2021).

Reviewer, Journal Article, Journal of Applied Statistics. (February 2021 - March 2021).

Reviewer, Ad Hoc Reviewer, Mathematica Slovaca. (February 2021 - March 2021).

Reviewer, Ad Hoc Reviewer, Proceedings of Bulgarian Academy of Sciences. (February 2021 - March 2021).

Reviewer, Ad Hoc Reviewer, Purdue University Northwest, Hammond, Indiana. (June 16, 2020 - July 15, 2020).

Grant Proposal Reviewer, External, National Science Foundation. (June 15, 2020 - June 23, 2020).

Reviewer, Journal Article, Methodology and Computing in Applied Probability. (2019).

Reviewer, Grant Proposal, US Department of Education. (August 2019).

Reviewer, Grant Proposal, National Science Foundation. (May 2019).

Committee Co-Chair, Edinburg, Texas. (March 2019).

Reviewer, Journal Article, Journal of Mathematical Analysis and Applications (Elsevier). (2018).

Reviewer, Textbook, Mcmillan Learning. (April 10, 2018).

Reviewer, Textbook, Chapman & Hall/CRC. (2016).

Reviewer, Journal Article, J. Statistical Theory and Applications. (2016).

Reviewer, Grant Proposal, EPA STAR Fellowship Program. (2015).

Reviewer, Journal Article, J. Statistical Applications and Probability (Natural Sci, Publ.). (2015).

Reviewer, Grant Proposal, National Science Foundation. (2015).

Reviewer, Journal Article, Pakistan Journal of Statistics and Operational Research. (2015).

Reviewer, Journal Article, Statistics and Probability Letters (Elsevier). (2015).

Reviewer, Journal Article, FILOMAT (Serbia). (2014).

Reviewer, Journal Article, Pliska Studia Mathematica (Bulgaria). (2014).

Reviewer, Journal Article, Proceedings Mathematical Sciences (Springer). (2014).

Reviewer, Journal Article, Theory of Probability and its Applications (Russia). (2014).

Reviewer, Grant Proposal, EPA STAR Fellowship Program. (2013).

## **Public Service**

Speaker, Career Day at Hidalgo Early College High School, Hidalgo, Texas. (March 10, 2017).

Task Force Member, University of Texas Rio Grande Valley, Edinburg, Texas. (2014 - 2016).

Judge, UTRGV Regional Science Bowl, McAllen, Texas. (February 8, 2016).

Judge, U.S. Dept of Energy Regional Science Bowl, McAllen, Texas. (February 12, 2015).