Adrián Esteban Pérez

Curriculum Vitae

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Citizenship: Spanish (D.O.B. 04/09/1994).

I am a postdoctoral researcher focused on Optimization under Uncertainty (Stochastic, Robust and Distributionally Robust Optimization) with applications in Power Systems and Management Science. Also, I am interested in probability metrics and optimal transport tools in data-driven decision making under uncertainty models.

Education

2018 - 2022 University of Malaga.

 PhD thesis: THEORY AND APPLICATIONS OF DISTRIBUTIONALLY ROBUST OPTIMIZATION WITH SIDE DATA. PhD supervisor: Juan M. Morales.

2016-2017 University of Valladolid, Master in Mathematics Research.

 Master thesis: Lagrangian relaxation, heuristic and metaheuristic methods in some Location and Inventory models. Advisor: Dr. Jesús Sáez Aguado.

2012-2016 University of Valladolid, Bsc in Mathematics.

 Bachelor thesis: Study of retrohereditary properties in some sequential problems of Stochastic Optimization. Advisors: Dr. Jesús Sáez Aguado and Dr. Juan García Laguna.

List of Journal Publications

- A. Esteban-Pérez and J. M. Morales, Distributionally Robust Optimal Power Flow with Contextual Information, *European Journal of Operational Research*, https://doi.org/10.1016/j.ejor.2022.10.024.
- A. Esteban-Pérez and J. M. Morales, Distributionally robust stochastic programs with side information based on trimmings, 195, pp. 1069–1105, 2022 Mathematical Programming. DOI: 10.1007/s10107-021-01724-0
- A. Esteban-Pérez and J. M. Morales, Partition-based Distributionally Robust Optimization via Optimal Transport with Order Cone Constraints, 20 pp. 465–497, 22 4OR. DOI: 10.1007/s10288-021-00484-z.

Other works

 Some heuristic methods for the p-median problem with maximum distance constraints, M. Baldomero-Naranjo et al. (Eds): VIII International workshop on locational analysis and related problems, ISBN: 978-84-697- 5263-0, Segovia, pp. 37-38.

Congress, Workshops

- A. Esteban-Pérez, Y. Rychener, J.M. Morales and D. Kuhn, "Data-driven distributionally robust optimization with multiple datasets: Applications to the OPF problem", INFORMS 22, Indianapolis, USA,16-19th October, 2022.
- A. Esteban-Pérez and J.M. Morales "Distributionally robust stochastic programs with side information based on trimmings", Selected as one of the finalists for best student paper ECSO-CMS 2022, Venice, Italy, 29-30th June 1st July, 2022.
- J.M. Morales and A. Esteban-Pérez "Distributionally robust chance-constrained optimal power flow with contextual information", ECSO-CMS 2022, Venice, Italy, 29-30th June 1st July, 2022.
- J.M. Morales and A. Esteban-Pérez "Distributionally robust optimization with side information based on probability trimmings and optimal transport", SEIO 2022, Granada, Spain, 7 - 10 June, 2022.
- A. Esteban-Pérez and J.M. Morales "Distributionally Robust Optimal Power Flow with Contextual Information",
 College of Management of Technology (CMD) Seminar, Ecole Polythechnique Fédérale de Lausanne (EPFL),
 Lausanne, Switzerland, 30 November, 2021.
- Distributionally robust optimization with side information based on probability trimmings and optimal transport,
 31st European Conference on Operational Research (EURO 2021), Athens, Greece, 11-14 July 2021.
- A. Esteban-Pérez and J. M. Morales, Distributionally Robust Prescriptive Analytics Based On Optimal Transport, INFORMS Annual Meeting, Washington DC, USA, 7-13 November 2020.
- A. Esteban-Pérez, *Data-Driven Distributionally Robust Optimization Via Optimal Transport With Order Cone Constraints*, Jornada científica IMUS-UMA, Sevilla, Spain, 29th Nov., 2019.
- A. Esteban-Pérez and J. M. Morales, Data-Driven Distributionally Robust Optimization Via Optimal Transport With Order Cone Constraints, The XV International Conference on Stochastic Programming (ICSP XV), Trondheim, Norway, 29th Jul.-2nd Aug., 2019.
- Workshop on Data Science, IMUS, 13th Sep.-14th Sep. Sevilla.
- o A. Esteban-Pérez and J. M. Morales, Data-driven Distributionally Robust Optimization with Wasserstein Metric,

- Moment Conditions and Robust Constraints, 29th European Conference on Operational Research (EURO), Valencia, Spain, 8-11th Jul., 2018.
- A. Esteban-Pérez and J. Sáez-Aguado, Some heuristic methods for the p-median problem with maximum distance constraints, VIII International workshop on locational analysis and related problems, September, 27th-29th, 2017, Segovia (Spain).
- o IV Encuentro Conjunto RSME-SMM, June 19th-22th, 2017, Valladolid (Spain).

Other information

- Member of Spanish Society of Statistics and Operations Research (SEIO).
- Collaborator within the project P20-00153 "Métodos de Optimización Matemática para la Toma de Decisiones usando Información Contextual."
- o Collaborator in the project "Adaptación de software de la aplicación denominada Programa de Optimización de Asistencia Sanitaria en Castilla y León (PROASCYL), para una configuración de trabajo distribuido en red, así como la eliminación de librerás de optimización externas. Ref.: 061/164661. Principal Research: Jesús Sáez Aguado. Duration: From 05/10/2016 to 26/10/2016, por importe de 17.000,00 €. Entidad: Junta de Castilla y León.