

# Adrián Javaloy Bornás

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Saarbrücken, Germany

## Education

- 2020 – now **PhD candidate**, advised by Isabel Valera, University of Saarland
- 2019 – 2020 **PhD candidate**, advised by Isabel Valera, MPI for Intelligent Systems
- 2017 – 2018 **MSc in New Technologies in Computer Science**, University of Murcia, 9.37/10 GPA, 60 ECTS
- 2016 – 2017 **Erasmus+**, Norwegian University of Science and Technology, Trondheim
- 2012 – 2018 **BSc in Computer Engineering**<sup>1</sup>, University of Murcia, 8.60/10 GPA, 240 ECTS
- 2012 – 2017 **BSc in Mathematics**<sup>2</sup>, University of Murcia, 9.37/10 GPA, 240 ECTS

<sup>1,2</sup> Double bachelor degree programme in Mathematics and Computer Science Engineering

## Research

- 2022 **Mitigating Modality Collapse in Multimodal VAEs via Impartial Optimization**, *Spotlight @ ICML 2022*  
[Javaloy, A., Meghdadi, M. and Valera, I.](#)
- 2022 **RotoGrad: Gradient Homogenization for Multi-Task Learning**, *Spotlight @ ICLR 2022*  
[Javaloy, A. and Valera, I.](#)
- 2021 **Boosting heterogeneous VAEs via multi-objective optimization**, *YMIW NeurIPS workshop*  
[Javaloy, A., Meghdadi, M. and Valera, I.](#)
- 2020 **Relative gradient optimization of the Jacobian term in unsupervised deep learning**, *NeurIPS'20*  
[Gresele, L., Fissore, G., Javaloy, A., Schölkopf, B. and Hyvarinen, A.](#)
- 2020 **Lipschitz-standardization for robust multivariate learning**, *preprint*  
[Javaloy, A. and Valera, I.](#)
- 2020 **Preliminary Results on Different Text Processing Tasks Using Encoder-Decoder Networks and the Causal Feature Extractor**, *Applied Sciences*. 10(17):5772. [Javaloy, A. and García-Mateos, G.](#)
- 2020 **Text Normalization Using Encoder-Decoder Networks Based on the Causal Feature Extractor**, *Applied Sciences*. 10(13):4551. [Javaloy, A. and García-Mateos, G.](#)

## Awards and funding

- 2022 **Saltire Emerging Researcher Scheme**, £2500, 2-month visit to Dr. Vergari @ Edinburgh

## Talks

- 2022 **University of Edinburgh**, *Bayesian and Neural Systems Group*, On conflict and incomparability
- 2021 **University of Eastern Finland**, *Machine learning in brain imaging group*, RotoGrad

## Teaching

- Winter 2021 **Elements of Machine Learning**, University of Saarland, Leader TA
- Summer 2021 **Machine Learning**, University of Saarland, TA
- Winter 2020 **Probabilistic Machine Learning**, University of Saarland, TA
- Winter 2019 **Advanced Probabilistic Machine Learning and Applications**, University of Tübingen, TA

## Volunteering

- 2023 **International Conference on Artificial Intelligence and Statistics (AISTATS)**, reviewer
- 2023 **International Conference on Learning Representations (ICLR)**, reviewer
- 2022 [Conference on Neural Information Processing Systems \(NeurIPS\)](#), reviewer
- 2022 **Tractable Probabilistic Workshop (TPM)**, reviewer
- 2022 [Conference of Uncertainty in Artificial Intelligence \(UAI\)](#), reviewer

- 2022 [✉](#) **International Conference of Machine Learning (ICML)**, *reviewer*
- 2021 [✉](#) **International Conference on Artificial Intelligence and Statistics (AISTATS)**, *reviewer*  
Outstanding Reviewer Award (top 10%)
- 2021 **ML Pre-registration workshop**, *reviewer*
- 2021 [✉](#) **Conference on Neural Information Processing Systems (NeurIPS)**, *reviewer*  
Outstanding Reviewer Award (top 8%)
- 2021 **Tractable Probabilistic Workshop (TPM)**, *reviewer*
- 2021 **European Conference on Machine Learning (EMCL-PKDD)**, *volunteer*
- 2021 [✉](#) **Conference of Uncertainty in Artificial Intelligence (UAI)**, *reviewer*
- 2021 [✉](#) **International Conference of Machine Learning (ICML)**, *reviewer*
- 2020 [✉](#) **International Conference on Artificial Intelligence and Statistics (AISTATS)**, *reviewer*
- 2020 **European Laboratory for Learning and Intelligent Systems (ELLIS)**, *evaluator*
- 2020 [✉](#) **Machine Learning Summer School (MLSS) Tübingen**, *selection committee*

## --- Summer Schools

- 2020 **Regularization Methods for Machine Learning (RegML)**, *online*
- 2020 **Spring Meeting on Mining and Learning (SMiLe)**, *KU Leuven*
- 2019 **Machine Learning Summer School (MLSS)**, *Moscow*

## --- Internships

- Jan'19–Jun'19 **PhD stipend**, *Empirical Inference department*, MPI for Intelligent Systems  
[✉](#) Working at the Probabilistic Learning group with Isabel Valera.
- Nov'17–Sep'18 **Junior researcher**, *ANTS research group*, Computer Science Faculty at University of Murcia  
[✉](#) Collaboration with the local water company on an European project for anomaly detection.

## --- Works on which I *proudly* appear in acknowledgments

- 2022 [✉](#) **Impossibility of Collective Intelligence**, *preprint*  
Muandet, K.
- 2022 [✉](#) **Design of Variational Graph Autoencoders for Interventional and Counterfactual Queries**, *AAAI*  
Sanchez-Martin, P., Rateike, M. and Valera, I.
- 2021 [✉](#) **Independent mechanism analysis, a new concept?**, *NeurIPS*  
Gresele, L., von Kügelgen, J., Stimper, V., Schölkopf, B. and Besserve, M.
- 2021 [✉](#) **Algorithmic Recourse: from Counterfactual Explanations to Interventions**, *ACM FAccT*  
Karimi, A-H., Schölkopf, B. and Valera, I.
- 2020 [✉](#) **Algorithmic recourse under imperfect causal knowledge: a probabilistic approach**, *NeurIPS*  
Karimi, A-H., von Kügelgen, J., Schölkopf, B. and Valera, I.