


Adrián Javaloy

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Education

- 2020 – now **PhD in Machine Learning**, advised by Isabel Valera, University of Saarland
- 2019 – 2020 **PhD in Machine Learning**, 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 **BSc¹ in Computer Engineering**, University of Murcia, 8.60/10 GPA, 240 ECTS
- 2012 – 2017 **BSc² in Mathematics**, University of Murcia, 9.37/10 GPA, 240 ECTS

^{1,2} 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.](#)
- 2020 **Relative Gradient Optimization of the Jacobian Term in Unsupervised Deep Learning**, *NeurIPS 2020*
🔗 [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.*
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Awards and funding

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

Talks

- 2022 **Aalto University and ELLIS unit Helsinki**, *Seminar on Advances in Probabilistic Machine Learning*, Mitigating Modality Collapse in Multimodal VAEs via Impartial Optimization
- 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, Lead Teaching Assistant
- 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

- Conference reviewer AISTATS (2021, 2022*, 2023) ▪ ICML (2021, 2022*) ▪ NeurIPS (2021*, 2022) ▪ UAI (2021, 2022) ▪ ICLR (2023)
- Workshops Tractable Probabilistic Modeling (2021, 2022) ▪ ML Pre-registration (2022)
- Volunteer ECML-PKDD (2021) ▪ MLSS-Tübingen (2020)
- Evaluator ELLIS network (2021, 2022)

* Best reviewer awards

Supervision

2022 **Daphna Keidar**, *ETH*, Master thesis: Modeling subgroup differences in fMRI data: disentangling subgroup-specific responses from shared ones

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 a local company on an European project for anomaly detection.

Honorable mentions

- 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.