

Pablo Moreno-Muñoz

Technical University of Denmark (DTU)
Dept. of Applied Mathematics and Computer Science
Section for Cognitive Systems
2800 Kgs. Lyngby, Denmark

pabmo@dtu.dk
Room 220 / Building 321
<https://pmorenoz.github.io/>
<https://github.com/pmorenoz>

POSITIONS	Technical University of Denmark (DTU) <i>Postdoctoral researcher</i> . Cognitive Systems Section with Søren Hauberg (DTU Compute)	April 2021 - Present
	Max Planck Institute for Intelligent Systems <i>Research intern</i> . Probabilistic Learning Group Supervisor: Isabel Valera	Feb. 2019 - Jun. 2019
	University of Sheffield <i>Visiting researcher</i> . Probabilistic Machine Learning Group Supervisor: Mauricio A. Álvarez	Mar. 2018 - May 2018
	IMDEA Networks <i>Student intern</i> . Madrid Institute of Advanced Studies	Oct. 2015
	European Space Agency (ESA) <i>Trainee</i> . European Space Astronomy Center Supervisors: Tim Rawle and Bruno Altieri	Mar. 2015 - Sep. 2015
EDUCATION	Universidad Carlos III de Madrid <i>PhD student in Machine Learning</i> Signal Processing Group Laboratory Advisor: Dr. Antonio Artés	Sep. 2016 - Dec. 2020
	Universidad Carlos III de Madrid M.Sc. in Multimedia and Communications M.Sc. in Telecommunication Engineering	Sep. 2014 - Jul. 2016
	Technical University of Denmark (DTU) Erasmus Scholarship, Telecommunications Engineering	Jan. 2013 - Jul. 2013
	Universidad Carlos III de Madrid B.Sc. in Telecommunication Technologies	Sep. 2010 - Jul. 2014
TEACHING	Universidad Carlos III de Madrid <i>Teaching Assistant</i> in Data Modelling	1st Semester 2020
	<i>Teaching Assistant</i> in Probabilistic Modelling and Inference	1st Semester 2019
	<i>Teaching Assistant</i> in Advanced Signal Processing	1st Semester 2018
	<i>Teaching Assistant</i> in Linear Systems	1st Semester 2016
SUMMER SCHOOLS & OTHERS	Machine Learning Frontiers in Precision Medicine (MLFPM), Basel, Switzerland	2019
	Machine Learning Summer School (MLSS), Universidad Autónoma de Madrid	2018
	Data Science Summer School (DS3), École Polytechnique, Paris	2017
	Gaussian Process Summer School (GPSS), University of Sheffield	2017
	Bayesian Optimization Course, Universidad Autónoma de Madrid	2016
TALKS	Secondmind Seminar Series, Cambridge	2022
	Center for Basic Machine Learning Research in Life Science (MLLS), Copenhagen	2021
	University of Sheffield, Probabilistic Machine Learning Group	2019

	University of Sheffield, Probabilistic Machine Learning Group	2018
	Universidad Carlos III de Madrid, Signal Processing Group	2017
	Secondary School Research Com. Program, Comunidad de Madrid	2016
REVIEWING	Transactions on Machine Learning Research (TMLR)	2022
	International Conference on Machine Learning (ICML)	2022
	Artificial Intelligence and Statistics (AISTATS)	2021–2022
	International Conference on Learning Representations (ICLR)	2020, 2021
	Neural Information Processing Systems (NeurIPS)	2019–2022
	Machine Learning for Health Workshop at NIPS	2017–2021
	IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)	2022
	Machine Learning, Springer	2019
	Journal of Machine Learning Research (JMLR)	since 2018
PUBLICATIONS	M. Miani, F. Warburg, <u>P. Moreno-Muñoz</u> , N. S. Detlefsen and S. Hauberg.	
15. [PREPRINT]	Laplacian Autoencoders for Learning Stochastic Representations. <i>In arXiv:2206.15078</i> , 2022.	
14. [PREPRINT]	H. Hauschultz, R. B. Palm, <u>P. Moreno-Muñoz</u> , N. S. Detlefsen, A. A. du Plessis and S. Hauberg. Is an encoder within reach? <i>In arXiv:2206.01552</i> , 2022.	
13. [PREPRINT]	<u>P. Moreno-Muñoz</u> , C. W. Feldager and S. Hauberg. Revisiting Active Sets for Gaussian Process Decoders. <i>In arXiv:2209.04636</i> , 2022.	
12. [PREPRINT]	S. Bartels, K. Stensbo-Smidt, <u>P. Moreno-Muñoz</u> , J. Frellsen, W. Boomsma and S. Hauberg. Adaptive Cholesky Gaussian Processes. <i>In arXiv:2202.10769</i> , 2022.	
11. [JOURNAL]	M. L. Barrigón, L. Romero-Medrano, <u>P. Moreno-Muñoz</u> , A. Porras-Segovia, J. López-Castroman, A. Artés-Rodríguez and E. Baca-García. One-week suicide risk prediction using real-time smartphone monitoring. <i>Under submission</i> , 2022.	
10. [CONFERENCE]	<u>P. Moreno-Muñoz</u> , A. Artés-Rodríguez and Mauricio A. Álvarez. Modular Gaussian Processes for Transfer Learning. <i>In Advances in Neural Information Processing Systems 34 (NeurIPS)</i> , 2021.	
9. [JOURNAL]	L. Romero-Medrano, <u>P. Moreno-Muñoz</u> and A. Artés-Rodríguez. Multinomial Sampling of Latent Variables for Hierarchical Change-point Detection. <i>In the Journal of Signal Processing Systems, MLSP Special Issue</i> , 2021.	
8. [WORKSHOP]	<u>P. Moreno-Muñoz</u> , L. Romero-Medrano, A. Moreno, J. Herrera-López, E. Baca-García and A. Artés-Rodríguez. Passive Detection of Behavioral Shifts for Suicide Attempt Prevention. <i>In Workshop in Machine Learning for Mobile-Health (ML4MH)@ NeurIPS</i> , 2020.	
7. [PREPRINT]	<u>P. Moreno-Muñoz</u> , A. Artés-Rodríguez and Mauricio A. Álvarez. Recyclable Gaussian Processes. <i>In arXiv:2010.02554</i> , 2020.	
6. [WORKSHOP]	L. Romero-Medrano, <u>P. Moreno-Muñoz</u> and A. Artés-Rodríguez. Multinomial Sampling for Hierarchical Change-Point Detection. <i>In IEEE Workshop in Machine Learning for Signal Processing (MLSP)</i> , 2020.	

5. [JOURNAL] P. Moreno-Muñoz, D. Ramírez and A. Artés-Rodríguez.
Change-Point Detection in Hierarchical Circadian Models.
In Pattern Recognition, Elsevier, 2020.
 4. [CONFERENCE] P. Moreno-Muñoz, D. Ramírez and A. Artés-Rodríguez.
Continual Learning for Infinite Hierarchical Change-Point Detection.
In International Conf. on Acoustics, Speech and Signal Processing (ICASSP), 2020.
 3. [PREPRINT] P. Moreno-Muñoz, A. Artés-Rodríguez and Mauricio A. Álvarez.
Continual Multi-task Gaussian Processes.
In arXiv:1911.00002, 2019. (*under review in JMLR*)
 2. [CONFERENCE] P. Moreno-Muñoz, A. Artés-Rodríguez and Mauricio A. Álvarez.
Heterogeneous Multi-output Gaussian Process Prediction.
In Advances in Neural Information Processing Systems 31 (NeurIPS), 2018. ([spotlight](#))
 1. [JOURNAL] S. Berrouguet, D. Ramírez, M. L. Barrigón Estévez, P. Moreno-Muñoz, R. Carmona Camacho, E. Baca-García and A. Artés-Rodríguez.
Combining continuous smartphone native sensors data capture and unsupervised data mining techniques for behavioral changes detection: The feasibility study of the Evidence Based Behavior (eB2) platform.
In Journal of Medical Internet Research (JMIR) mHealth and uHealth, 2018.
- DISSERTATIONS P. Moreno-Muñoz.
Probabilistic Models for Human Behavior Learning.
Ph.D. Thesis Dissertation, Universidad Carlos III de Madrid. 2021
- P. Moreno-Muñoz.
Change Point Detection in Behavioral High Dimensional Data.
M.Sc. Thesis Dissertation (Multimedia and Communications). 2016
- P. Moreno-Muñoz.
Anomalous Behavior Detection in Psychiatry.
M.Sc. Thesis Dissertation (Telecommunication Engineering). 2016
- P. Moreno-Muñoz. **Photometric Redshift within crowded galaxy fields.**
ESA Project Report. 2015
- P. Moreno-Muñoz. **Statistical Learning Costs with Partial Labels.**
B.Sc. Thesis Dissertation (spanish). 2014
- OTHERS J. J. Giraldo-Gutierrez, P. Moreno-Muñoz, M. A. Álvarez. **Natural Gradient Optimization for Improving Inference of Heterogeneous Multi-output Gaussian Process Models**, Advances in Data Science, Manchester, 2019 (poster)
- P. Moreno-Muñoz, A. Artés-Rodríguez, M. A. Álvarez. **Heterogeneous Multi-task Gaussian Process Learning**, Advances in Data Science, Manchester, 2018 (poster)
- GRANTS & PRIZES Top 10% reviewer in *International Conference in Machine Learning (ICML)* 2022
FPI grant to fund doctoral studies. Ministry of Economy and Industry, Spain. 2016-2020
- LANGUAGES **Spanish** – Mothertongue, **English** – Advanced (TOEFL: 100/120), **French** – Basic
- REFERENCES Søren Hauberg, Professor at Technical University of Denmark (DTU), Copenhagen.
Antonio Artés-Rodríguez, Professor at Universidad Carlos III de Madrid.
Mauricio A. Álvarez, Senior Lecturer at University of Sheffield, UK.