## Pablo Moreno-Muñoz

Technical University of Denmark (DTU)  $\,$ 

	d Mathematics and Computer Science nitive Systems	pabmo@dtu.dk Room 220 / Building 321 https://pmorenoz.github.io/ https://github.com/pmorenoz
Positions	Technical University of Denmark (DTU) <u>Postdoctoral researcher</u> . Cognitive Systems Section with Søren Hauberg (DTU Compute)	April 2021 - Present
	Max Planck Institute for Intelligent Systems <u>Research intern.</u> Probabilistic Learning Group  Supervisor: Isabel Valera	Feb. 2019 - Jun. 2019
	University of Sheffield  Visiting researcher. Probabilistic Machine Learning Group Supervisor: Mauricio A. Álvarez	Mar. 2018 - May 2018
	IMDEA Networks <u>Student intern.</u> Madrid Institute of Advanced Studies	Oct. 2015
	European Space Agency (ESA) <u>Trainee</u> . European Space Astronomy Center Supervisors: Tim Rawle and Bruno Altieri	Mar. 2015 - Sep. 2015
EDUCATION	Universidad Carlos III de Madrid PhD student in Machine Learning 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  Teaching Assistant in Data Modelling  Teaching Assistant in Probabilistic Modelling and Inference  Teaching Assistant in Advanced Signal Processing  Teaching Assistant in Linear Systems	1st Semester 2020 1st Semester 2019 1st Semester 2018 1st Semester 2016
SUMMER SCHOOLS & OTHERS	Machine Learning Frontiers in Precision Medicine (MLFPM) Machine Learning Summer School (MLSS), Universidad Auto Data Science Summer School (DS3), École Polytechnique, Pa Gaussian Process Summer School (GPSS), University of Shef Bayesian Optimization Course, Universidad Autónoma de Ma	5000         2018           3017         2017           3016         2017
Talks	Secondmind Seminar Series, Cambridge Center for Basic Machine Learning Research in Life Science (University of Sheffield, Probabilistic Machine Learning Group	

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	University of Sheffield, Probabilistic Machine Learning Group Universidad Carlos III de Madrid, Signal Processing Group Secondary School Research Com. Program, Comunidad de Madrid	2018 2017 2016	
Reviewing	Transactions on Machine Learning Research (TMLR) International Conference on Machine Learning (ICML) Artificial Intelligence and Statistics (AISTATS) International Conference on Learning Representations (ICLR) Neural Information Processing Systems (NeurIPS) Machine Learning for Health Workshop at NIPS IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI) Machine Learning, Springer Journal of Machine Learning Research (JMLR)	2022 2022 2021–2022 2020, 2021 2019–2022 2017–2021 2022 2019 since 2018	
PUBLICATIONS 15. [CONFERENCE]	M. Miani, F. Warburg, <u>P. Moreno-Muñoz</u> , N. S. Detlefsen and S. Hauberg. <b>Laplacian Autoencoders for Learning Stochastic Representations</b> . <i>In Advances in Neural Information Processing Systems 35 (NeurIPS)</i> , 2022.		
14. [CONFERENCE]	P. Moreno-Muñoz, C. W. Feldager and S. Hauberg. Revisiting Active Sets for Gaussian Process Decoders. In Advances in Neural Information Processing Systems 35 (NeurIPS), 2022.		
13. [PREPRINT]	<ul> <li>H. Hauschultz, R. B. Palm, <u>P. Moreno-Muñoz</u>, N. S. Detlefsen,</li> <li>A. A. du Plessis and S. Hauberg.</li> <li>Is an encoder within reach?</li> <li>In arXiv:2206.01552, 2022.</li> </ul>		
12. [PREPRINT]	S. Bartels, K. Stensbo-Smidt, <u>P. Moreno-Muñoz</u> , J. Frellsen, W. Boomsma and S. Hauberg. <b>Adaptive Cholesky Gaussian Processes</b> .  In arXiv:2202.10769, 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 mon <i>Under submission</i> , 2022.		
10. [CONFERENCE]	P. Moreno-Muñoz, A. Artés-Rodríguez and Mauricio A. Álvarez.  Modular Gaussian Processes for Transfer Learning.  In Advances in Neural Information Processing Systems 34 (NeurIPS), 2021.		
9. [JOURNAL]	L. Romero-Medrano, P. Moreno-Muñoz and A. Artés-Rodríguez.  Multinomial Sampling of Latent Variables  for Hierarchical Change-point Detection.  In the Journal of Signal Processing Systems, MLSP Special Issue, 2021.		
8. [workshop]	P. Moreno-Muñoz, L. Romero-Medrano, A. Moreno, J. Herrera-López, E. Baca-García and A. Artés-Rodríguez.  Passive Detection of Behavioral Shifts for Suicide Attempt Prevention.  In Workshop in Machine Learning for Mobile-Health (ML4MH)@ NeurIPS, 2020.		
7. [PREPRINT]	P. Moreno-Muñoz, A. Artés-Rodríguez and Mauricio A. Álvarez. Recyclable Gaussian Processes. In arXiv:2010.02554, 2020.		
6. [workshop]	L. Romero-Medrano, <u>P. Moreno-Muñoz</u> and A. Artés-Rodríguez. <b>Multinomial Sampling for Hierarchical Change-Point Detection</b> .  In IEEE Workshop in Machine Learning for Signal Processing (MLSP), 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. Berrouiguet, D. Ramírez, M. L. Barrigón Estévez, <u>P. Moreno-Muñoz</u>, 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 Gaus-

sian Process Learning, Advances in Data Science, Manchester, 2018 (poster)

GRANTS Top 10% reviewer in International Conference in Machine Learning (ICML) 2022

& Prizes 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.