

CURRICULUM VITAE (01.2023)

Cristian PREDA

Professor of Statistics

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1 Official appointments

Year(s)	Position	Institution
2008 - present	Professor	Université de Lille, Ecole Polytech'Lille, France
2000 - 2008	Associate Professor	Université de Lille, Faculté de Médecine, France
2000 February - July	Assistant Researcher	Université Libre de Bruxelles, Belgium
1997-1999 February - July	Vacataire	Université Paris Sud, France
1997-1999 September - January	Assistant researcher	Statistical Institute of Romanian Academy

2 Research interests

- ▷ **Functional data** Regression models for functional data. PLS approach. Discrimination and unsupervised classification (clusterwise regression). Approximation of multivariate analysis for functional data. Nonparametric regression. Regression models based on Reproducing Kernel Hilbert Spaces Models. Machine learning. Missing data. NIPALS algorithm.
- ▷ **Scan statistics** : Atypical cluster detection. Confidence bands for continuous and discrete scan statistics repartition function. Scan statistics and 1-dependence. Applications in epidemiology, public health and biology.
- ▷ **Mathematical programming** : Algorithms for the PLS approach for functional data, RKHS methods and scan statistics simulation.

3 Publications

48 papers in peer-reviewed journals

See also the list of publications on : <https://scholar.google.com/citations?user=hCy7I40AAAAJ&hl=en>



Cristian Preda

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functional data scan statistics biostatistics

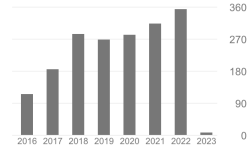
SUIVRE

OBTENIR MON PROPRE PROFIL

TITRE	CITÉE PAR	ANNÉE
Functional data clustering: a survey J. Jacques, C. Preda Advances in Data Analysis and Classification 8 (3), 231-255	360	2014
Model-based clustering for multivariate functional data J. Jacques, C. Preda Computational Statistics & Data Analysis 71, 92-106	290	2014
Clusterwise PLS regression on a stochastic process C. Preda, G. Saporta Computational Statistics & Data Analysis 49 (1), 99-108	244	2005
PLS classification of functional data C. Preda, G. Saporta, C. Lévesque Computational Statistics 22 (2), 223-235	180	2007

Citée par TOUT AFFICHER

	Toutes	Depuis 2018
Citations	2423	1512
indice h	22	19
indice i10	32	21



Five selected papers :

1. Preda C., Grimonprez Q., Vandewalle V. *Categorical Functional Data Analysis. The cfda R Package*. Mathematics. 2021 ; 9(23) :3074. <https://doi.org/10.3390/math9233074>
2. A. Amarioarei, C. Preda, *One Dimensional Discrete Scan Statistics for Dependent Models And Some Related Problems*, Mathematics, 2020, 8(4) ,576; <https://doi.org/10.3390/math8040576>.
3. Alexandru Amarioarei, Michael Genin, Cristian Preda, *Two dimensional discrete scan statistics with arbitrary window shape*, Handbook of scan statistics, 2019. hal-02405886.
4. J. Jacques, C. Preda, Model-based clustering of multivariate functional data, Computational Statistics and Data Analysis, 2014, 72, 92-106.
5. C. Preda, *Regression models for functional data by reproducing kernel Hilbert spaces methods*, Journal of Statistical Planning and Inference, Vol. 137, 3, p. 829-840, (2007).

4 Invited Lectures

32 invited lectures.

5 Participation to research projects

2 European projects (IPIS : 2000 - 2004, PSIP : 2007-2010),
2 ANR projects (Nano3D : 2004-2006, ClinMine : 2014-2017)

6 Ph. D. students

- 5 phd thesis defended : Florence Loingeville (2016), Alexandru Amarioarei (2014), Michael Genin (2013), Apostol Costin (2010), Yaroslav Averyanov (2020).

- 3 current Ph. D. students : Issam Moindjie (2020-2023), Eglantine Karle (2020-2023), François Bassac (CIFRE, 2022-2024, Décathlon).

7 International mobility

Visiting professor : University of Granada, Spain (June 30 - 5 July, 2014), University Nanyang of Singapore (December 1–15, 2012), University of Granada, Spain (May 28 - June 3, 2011), University of Granada, Spain (May 23 - May 29, 2010), University of Luxembourg (March 15 – May 15, 2010), University of Bucharest (April 11–19, 2007)

8 Editorial activities

Associate Editor for :

- Methodology and Computing in Applied Probability (<http://www.springer.com/statistics/journal/11009>)
- Romanian Journal of Mathematics and Computer Science (<http://www.rjm-cs.ro>)