



PUBLIC SELECTION ESTABLISHED WITH DIRECTOR'S DECREE NO. 2024_PRO_DMAT_1 OF 22/02/2024 PURSUANT TO THE NOTICE PUBLISHED IN THE OFFICIAL GAZETTE NO. 01/03/2024, n. 18 FOR 1 POSITION AS FULL PROFESSOR FOR THE COMPETITION SECTOR 13/D1 – STATISTICS - SDS SECS-S/01 – STATISTICS, PURSUANT TO ART. 18 - LAW 240/2010, AT THE POLITECNICO DI MILANO - DEPARTMENT OF MATHEMATICS (PROCEDURE CODE 2024_PRO_DMAT_1).

FINAL REPORT

The Selection Board, appointed with RD Index No. 4040 ref. No. 79400 of 03 April 2024, composed by the following Professors:

Prof. SECCHI Piercesare - Politecnico di Milano;
Prof.ssa SJÖSTEDT DE LUNA Sara - Umeå universitet;
Prof. HRON Karel - Palacký University Olomouc,

met on 16th of May 2024, on the Teams platform, for the first teleconference meeting.
Each board member was connected from his/her workstation.

At the start of the session the members of the Selection Board named the Chair and the Secretary of the Selection Board:

SJÖSTEDT DE LUNA Sara, PROFESSOR at the Umeå Universitet, Chair;
SECCHI PIERCESARE, PROFESSOR at the Politecnico di MILANO, Secretary.

Each member of the board declared not to have conjugal nor family relationship or other degree of kinship or affinity up to the fourth degree, not to be in same-sex civil union (as per art. 1 of Law No. 76 of 20.05.2016) and not to form a cohabiting couple (as per art. 1, paragraphs 37 et seq. of Law No. 76 of 20.05.2016) with the other members of this board and that there were no reasons for abstention pursuant to arts. 51 and 52 of the Civil Procedure Code.

The members of the Selection Board and the Secretary declared, pursuant to art. 35-bis of Legislative Decree 165/2001, not to have *criminal convictions*, even with non-definitive sentences, for offences provided for in Chapter I, Title II of the second book of the Criminal Code.

The Selection Board established the criteria and the parameters according to which the assessment was carried out, and set the minimum score below which the candidate shall not be included in the ranking of candidates.

On July 1st 2024 at 13:00, the Selection Board met on the Teams platform to inspect the list of applicants, who were:

- 1) Ieva Francesca
- 2) Vantini Simone

Each member of the board declared not to have conjugal nor family relationship or other degree of kinship or affinity up to the fourth degree, not to be in same-sex civil union (as per art. 1 of Law No. 76 of 20.05.2016) and not to form a cohabiting couple (as per art. 1, paragraphs 37 et seq. of Law No. 76 of 20.05.2016) with the candidates and stated that there were no reasons for abstention pursuant to arts. 51 and 52 of the Civil Procedure Code.

Each member of the Selection Board also declared to not be co-author, with one or more candidates, in a percentage exceeding 50%, of the publications attached by them for evaluation purposes.

Pursuant to the examination and after adequate evaluation, the Selection Board assigned a score to each of the established criteria and a judgment to each publication submitted by the candidate; furthermore, the board evaluated the knowledge of the English language.

Therefore the board, considering the sum of the scores given, expressed a collective judgment in relation to the quantity and the quality of publications, evaluating the overall productivity of the applicant, also with regard to his/her period of activity.

The above-mentioned judgments are attached to this report and they are an integral part of it (Attachment No. 1 to this final report).

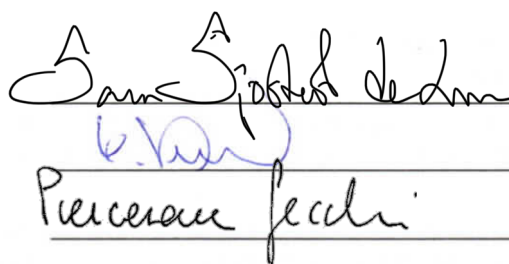
The Selection Board drew up, according to the majority of its members, a ranking of candidates selected to carry out the scientific/teaching functions for which the selection was called, in a number equal to a maximum of five times the number of positions available in the competition (Attachment No. 2 to this final report).

THE SELECTION BOARD

Prof. SJÖSTEDT DE LUNA Sara (Chair)

Prof. HRON Karel (Member)

Prof. SECCHI Piercesare (Secretary)



The image shows three handwritten signatures on horizontal lines. The top signature is in black ink and appears to be 'Sara Sjöstedt de Luna'. The middle signature is in blue ink and appears to be 'Karel Hron'. The bottom signature is in black ink and appears to be 'Piercesare Secchi'.



PUBLIC SELECTION ESTABLISHED WITH DIRECTOR'S DECREE NO. 2024_PRO_DMAT_1 OF 22/02/2024 PURSUANT TO THE NOTICE PUBLISHED IN THE OFFICIAL GAZETTE NO. 01/03/2024, n. 18 FOR 1 POSITION AS FULL PROFESSOR FOR THE COMPETITION SECTOR 13/D1 – STATISTICS - SDS SECS-S/01 – STATISTICS, PURSUANT TO ART. 18 - LAW 240/2010, AT THE POLITECNICO DI MILANO - DEPARTMENT OF MATHEMATICS (PROCEDURE CODE 2024_PRO_DMAT_1).

ATTACHMENT No. 1 to the FINAL REPORT

CRITERIA	Quality of scientific and/or project production, assessed on the basis of criteria and parameters recognized by the international scientific community of reference	Teaching activity at the university level in Italy or abroad	Scientific responsibility for funded research projects	Total
Ieva Francesca	50	22	11	83
Vantini Simone	53	24	14	91

CANDIDATE: Ieva Francesca

CURRICULUM:

Since 2020, the candidate has been Associate Professor in the scientific-disciplinary sector SECS-S/01 (Statistics) at the Department of Mathematics of the Politecnico di Milano (DMAT). She holds the national scientific qualification for Full Professor in the sector 13/D1 - Statistics. She graduated in Mathematical Engineering from the Politecnico di Milano, where she also obtained a Ph.D. in Mathematical Models and Methods for Engineering in 2011. From 2012 to 2013, she held a Postdoc position at DMAT. From 2013 to 2016 she has been Assistant Professor at the Department of Mathematics, University of Milan. In 2016 she moved back to DMAT as Assistant Professor before becoming Associate Professor in 2020. Between 2016 and 2024, she had three maternity leaves: 5 months in 2016, 7 months in 2018, and 5 months in 2023-24. In 2021 she became Associate Head of the Health Data Science Center of Human Technopole, Milan. The candidate has been invited to give numerous seminars and talks at international conferences or prestigious universities. She has been visiting scholar at prestigious international institutions. The candidate has been actively involved in organizing scientific conferences and is a member of numerous scientific societies. The candidate engages in extensive peer review activities for scientific journals. A number of her papers has received awards and recognitions from national and international institutions. She is a member of the Ph.D. board in Data Analytics and Decision Sciences (Politecnico di Milano).

SUBMITTED PUBLICATIONS:

No. of publications	Type/Title of Publication	Judgment
1	Cavinato, L., Massi, M.C., Sollini, M., Kirienco, M., Ieva, F. (2023) Dual Adversarial Deconfounding Autoencoder to remove batch-effect in multicenter radiomics data. <i>Scientific Reports</i> , 13: 18857 [Scopus: 0 citations, Journal best percentile: 92, Stat&Prob: NA]	Good
2	Cappozzo, A., Ieva, F., Fiorito, G. (2023) A general framework for penalized mixed-effects multitask learning with application on DNAm biomarkers creation. <i>The Annals of Applied Statistics</i> , 17(4): 3257-3282 [Scopus: 1 citations, Journal best percentile: 72 , Stat&Prob: 72]	Good
3	Cavinato, L., Pegoraro, M., Ragni, A., Sollini, M., Erba, P.A., Ieva, F. (2022), Imaging-based representation and stratification of intra-tumor heterogeneity via tree-edit distance. <i>Scientific Reports</i> , 12: 19607 [Scopus: 3 citations, Journal best percentile: 92 , Stat&Prob: NA]	Good
4	Masci, C., Ieva, F., Paganoni, A.M. (2022) Semiparametric Multinomial Mixed-Effects Models: a University Student Profiling Tool. <i>The Annals of Applied Statistics</i> , 16(3): 1608-1632 [Scopus: 3 citations, Journal best percentile: 72 , Stat&Prob: 72]	Good
5	Spreafico, M., Ieva, F. (2021) Functional modelling of recurrent events on time-to-event processes. <i>Biometrical Journal</i> , 63(5): 948-967 [Scopus: 2 citations, Journal best percentile: 73 , Stat&Prob: 73]	Good
6	Paulon, G., De Iorio, M., Guglielmi, A., Ieva, F. (2020) Joint modeling of recurrent events and survival: a Bayesian nonparametric approach. <i>Biostatistics</i> , 21 (1), 1-14. [Scopus: 11 citations, Journal best percentile: 90 , Stat&Prob: 90]	Very Good

7	Gasparoni, F., Ieva, F., Paganoni, A.M., Jackson C., Sharples L.D. (2020) Nonparametric frailty Cox models for hierarchical time-to-event data. Biostatistics , 21 (3): 531-544 [Scopus: 11 citations, Journal best percentile: 90 , Stat&Prob: 90]	Very Good
8	Tantardini, M., Ieva, F., Tajoli, L., Piccardi, C. (2019) Comparing methods for comparing networks. Scientific Reports , 9, 17557 [Scopus: 122 citations, Journal best percentile: 92 , Stat&Prob: NA]	Very Good
9	Masci, C., Paganoni, A.M., Ieva, F. (2019) Semi-parametric mixed-effects models for unsupervised classification of Italian schools. Journal of the Royal Statistical Society - series A , 182 (4): 1313–1342 [Scopus: 4 citations, Journal best percentile: 75 , Stat&Prob: 69]	Good
10	Ekin, T., Ieva, F., Ruggeri, F., Soyer, R. (2018) Statistical Medical Fraud Assessment: Exposition to an Emerging Field. International Statistical Review , 86 (3): 379–402 [Scopus: 28 citations, Journal best percentile: 85 , Stat&Prob: 85]	Excellent
11	Ekin, T., Ieva, F., Ruggeri, F., Soyer, R. (2017) On the Use of the Concentration Function in Medical Fraud Assessment. The American Statistician , 71(3): 236-241[Scopus: 10 citations, Journal best percentile: 88 , Stat&Prob: 78]	Very Good
12	Ieva, F., Jackson, C.H., Sharples, L.D. (2017) Multi-State modelling of repeated hospitalisation and death in patients with Heart Failure: the use of large administrative databases in clinical epidemiology. Statistical Methods in Medical Research , 26 (3): 1350-1372 [Scopus: 49 citations, Journal best percentile: 83 , Stat&Prob: 83]	Excellent
13	Ieva, F., Paganoni, A.M. (2016) Risk Prediction for Myocardial Infarction via Generalized Functional Regression Models. Statistical Methods in Medical Research . 25 (4): 1648-1660 [Scopus: 15 citations, Journal best percentile: 83 , Stat&Prob: 83]	Very Good
14	Guglielmi, A., Ieva, F., Paganoni, A.M., Ruggeri, F., Soriano, J. (2014) Semiparametric Bayesian modeling for the classification of patients with high observed survival probabilities. Journal of the Royal Statistical Society - Series C , 63 (1): 25-46 [Scopus: 11 citations, Journal best percentile: 61 , Stat&Prob: 61]	Good
15	Ieva, F., Paganoni, A.M., Pigoli, D., Vitelli, V. (2013) Multivariate functional clustering for the analysis of ECG curves morphology. Journal of the Royal Statistical Society – Series C , 62(3): 401-418 [Scopus: 66 citations, Journal best percentile: 61 , Stat&Prob: 61]	Very Good

Overall collective judgement

QUALITY OF SCIENTIFIC AND/OR PROJECT PRODUCTION, ASSESSED ON THE BASIS OF CRITERIA AND PARAMETERS RECOGNIZED BY THE INTERNATIONAL SCIENTIFIC COMMUNITY OF REFERENCE:

The candidate is author of 102 peer reviewed journal articles, 14 book chapters, 5 R packages, and more than 70 conference proceedings. She has been co-editor of 1 book of conference proceedings and 3 manuals in statistics (in Italian). Among the 15 scientific publications submitted for the procedure 12 are published in top-tier journals in the field of statistics, and 3 in an excellent multidisciplinary scientific journal. As of today, her Scopus h-index is 18 and her citations are 1104. She has been member of the scientific or the organizing committee of 5 national or international conferences or workshops, and is Stakeholder Chair of 1 international conference (COPA 2024). She has been invited speaker to 28 international conferences and workshops held in Europe and North America and co-author of many more invited/contributed presentations. The candidate's research activity is focused on statistical learning in biomedical context, with a specific focus on health analytics and health data science, developing methods and algorithms for information extraction from complex and heterogeneous sources of clinical data to inform predictive models supporting clinical decision making both in terms of precision medicine and precision policies. Notable is the candidate's recent effort to create a multidisciplinary environment within the HDS Center of Human Technopole where to pursue cross-fertilized research in health analytics, as well as the candidate's networking activities with different health institutions and consortia.

The collective assessment of the quality of scientific production is: 50 points out of 55 points

DIDACTIC ACTIVITIES CARRIED OUT IN ITALIAN OR FOREIGN UNIVERSITIES OR BODIES:

Since 2009, the candidate has gained extensive teaching experience in undergraduate, graduate, and Ph.D. courses on statistical topics at Politecnico di Milano. She lacks curricular teaching experience abroad. She supervised 4 PhD candidates and has been co-advisor of 6 PhD candidates, while being thesis advisor of scores of master of science students at Polimi. She is currently supervising 5 PhD candidates, and co-advising 2 PhD candidates.

The collective assessment of the teaching activity is: 22 points out of 30 points

SCIENTIFIC RESPONSIBILITY FOR FUNDED RESEARCH PROJECTS:

During her career, the candidate participated to 16 funded research projects: 11 (4 ongoing, 7 completed) funded by competitive research grants, in 1 of them she acted as PI, in the others as responsible of the the Polimi research sub-unit or as co-investigator; 5 (4 ongoing, 1 completed) directly funded by private companies or public institutions. Notably, since 2011, she has served as associate head of the Health Data Science Center of Human Technopole.

The collective assessment of the scientific responsibility for funded research projects is: 11 points out of 15 points

SCRUTINY OF THE DEGREE OF KNOWLEDGE OF THE ENGLISH LANGUAGE:

Excellent

CANDIDATE: Vantini Simone

CURRICULUM:

Since 2015, the candidate has been Associate Professor in the scientific-disciplinary sector SECS-S/01 (Statistics) at the Department of Mathematics of the Politecnico di Milano (DMAT). He holds the national scientific qualification for Full Professor in the sector 13/D1 - Statistics. He graduated in Nuclear Engineering from the Politecnico di Milano, where he also obtained a Ph.D. in Mathematical Engineering in 2008. From 2008 to 2009, he held a Postdoc position at DMAT, where he later served as a Assistant Professor until 2015. The candidate has been invited to give numerous seminars (including as Plenary/Keynote speaker) and talks at international conferences or prestigious universities. The candidate has spent extended periods as a visiting scholar at prestigious international institutions. The candidate has been actively involved in organizing scientific conferences and is a member of numerous scientific societies. The candidate engages in extensive peer review activities for scientific journals. The candidate has received numerous awards and recognitions from national and international institutions, both for his publications and for his scientific activity focused on projects with high social or industrial impact. He is a member of the Ph.D. board in Data Analytics and Decision Sciences (Politecnico di Milano).

SUBMITTED PUBLICATIONS:

No. of publications	Type/Title of Publication	Judgment
1	Sangalli, L.M., Secchi, P., Vantini, S., Veneziani, A. (2009), A case study in exploratory functional data analysis: geometrical features of the internal carotid artery, <i>Journal of the American Statistical Association</i> , Vol. 104, No. 485, pp. 37-48. [Scopus: 82 citations, Journal best percentile: 95, Stat&Prob: 95]	Excellent
2	Sangalli, L. M., Secchi, P., Vantini, S., Vitelli, V. (2010), k-mean Alignment for Curve Clustering, <i>Computational Statistics and Data Analysis</i> , Vol. 54., pp. 1219-1233. [Scopus: 118 citations, Journal best percentile: 80, Stat&Prob: 80]	Excellent
3	Vantini, S. (2012), On the Definition of Phase and Amplitude Variability in Functional Data Analysis, <i>Test</i> , Vol.21(4), pp. 676-696. [Scopus: 21 citations, Journal best percentile: 56, Stat&Prob: 56]	Very Good
4	Pini, A., Vantini, S. (2016), The Interval Testing Procedure: a general framework for inference in functional data analysis, <i>Biometrics</i> , Vol. 72(3), pp .835-845. [Scopus: 24 citations, Journal best percentile: 69, Stat&Prob: 66]	Very Good
5	Canale, A. and Vantini, S. (2016), Constrained functional time series: Applications to the Italian gas market, <i>International Journal of Forecasting</i> , Vol. 32(4), pp. 1340-1351. [Scopus: 25 citations, Journal best percentile: 96, Stat&Prob: NA]	Very Good
6	Pini, A., Stamm, A., Vantini, S. (2018), Hotelling's T2 in separable Hilbert spaces, <i>Journal of Multivariate Analysis</i> , 167, pp. 284-305. [Scopus: 9 citations, Journal best percentile: 60, Stat&Prob: 59]	Good
7	Pini, A., Vantini, S., Colosimo, B. M., Grasso, M. (2018), Domain-Selective Functional Analysis of Variance for Supervised Statistical Profile Monitoring of Signal Data, <i>Journal of the Royal Statistical Society - Series C</i> , 67(1), pp 55-81. [Scopus: 16 citations, Journal best percentile: 61, Stat&Prob: 61]	Good
8	Lovato, I., Pini, A., Stamm, A., Taquet, M., Vantini, S. (2021), Multiscale null hypothesis testing for network-valued data: Analysis of brain networks of patients with autism, <i>Journal of the Royal Statistical Society - Series C</i> , 70(2), pp. 372-397. [Scopus: 1 citations, Journal best percentile: 61, Stat&Prob: 61]	Good
9	Calissano, A., Feragen, A., Vantini, S. (2022), Graph-valued regression: Prediction of unlabelled networks in a non-Euclidean graph space, <i>Journal of Multivariate Analysis</i> , 190, 104950. [Scopus: 5 citations, Journal best percentile: 60, Stat&Prob: 59]	Good
10	Centofanti, F., Fontana, M., Lepore, A., Vantini, S. (2022), Smooth LASSO estimator for the Function-on-Function linear regression model, <i>Computational Statistics and Data Analysis</i> , 176, 107556. [Scopus: 7 citations, Journal best percentile: 80, Stat&Prob: 80]	Very Good
11	Calissano, A., Feragen, A., Vantini, S. (2024), Populations of Unlabeled Networks: Graph Space Geometry and Generalized Geodesic Principal Components, <i>Biometrika</i> , 111(1), pp. 147-170. [Scopus: NA citations, Journal best percentile: 94, Stat&Prob: 91]	Excellent
12	Pini, A., Sørensen, H., Tolver, A., Vantini, S. (2023), Local inference for functional linear mixed models, <i>Computational Statistics and Data Analysis</i> , 181, 107688. [Scopus: 1 citations, Journal best percentile: 80, Stat&Prob: 80]	Very Good
13	Fontana, M., Zeni, G., Vantini, S. (2023), Conformal prediction: A unified review of theory and new challenges, <i>Bernoulli</i> , 29(1), pp. 1-23. [Scopus: 34 citations, Journal best percentile: 76, Stat&Prob: 76]	Excellent
14	Diquigiovanni, J., Fontana, M., Vantini, S. (2024), The Importance of Being a Band: Finite-Sample Exact Distribution-Free Prediction Sets for Functional Data, <i>Statistica Sinica</i> , 35(2) (online) DOI: 10.5705/ss.202022.0087. [Scopus: NA citations, Journal best percentile: 53, Stat&Prob: 53]	Good
15	Ajroldi, N., Diquigiovanni, J., Fontana, M., Vantini, S (2023), "Conformal prediction bands for two-dimensional functional time series", <i>Computational Statistics and Data Analysis</i> , 187, 107821. [Scopus: 0 citations, Journal best percentile: 80, Stat&Prob: 80]	Very Good

Overall collective judgement

QUALITY OF SCIENTIFIC AND/OR PROJECT PRODUCTION, ASSESSED ON THE BASIS OF CRITERIA AND PARAMETERS RECOGNIZED BY THE INTERNATIONAL SCIENTIFIC COMMUNITY OF REFERENCE:

The candidate is author of 82 journal articles indexed on Scopus/WoS, 1 encyclopaedia entry, 13 R packages, 19 book chapters, editor of 2 collective book, 1 special issue of an international journal and also 1 patent. Among the 15 scientific publications submitted for the procedure, 14 are published in top-tier journals in the field of statistics and 1 in an excellent journal in business, management and accounting. As of today, his Scopus h-index is 19 and his citations are 1064. He has been member of the scientific or the organizing committee of 13 international conferences or workshops, and is General Chair of 1 international conference (COPA 2024). He has been invited speaker to more than 50 international conferences and workshops held in Europe, North America, Asia, and Africa, co-author of many more invited/contributed presentations, and has been selected as keynote speaker in 2 international conferences (ESGI 131, IWFOSS 2025). His research activity has been focused on the statistical analysis of complex data, like functional data or network valued data, targeted on developing novel methods and algorithms for data exploration, inference and prediction, with notable applications in industry, life sciences, social sciences, mobility and space. Quite commendable are the candidate's research activities with a direct impact on social issues and sustainability.

The collective assessment of the quality of scientific production is: 53 points out of 55 points

DIDACTIC ACTIVITIES CARRIED OUT IN ITALIAN OR FOREIGN UNIVERSITIES OR BODIES:

Since 2005, the candidate has gained extensive teaching experience in undergraduate, graduate, and Ph.D. courses on statistical topics at Politecnico di Milano. Although the candidate lacks curricular teaching experience abroad, the CV highlights his teaching for PhD courses in foreign universities as well as other diverse educational activities. He supervised 5 PostDocs, 7 PhD candidates and has been co-advisor of 9 PhD candidates, while being thesis advisor of scores of master of science students at Polimi. He is currently supervising 2 PhD candidates, and co-advising 2 PhD candidates.

The collective assessment of the teaching activity is: 24 points out of 30 points

SCIENTIFIC RESPONSIBILITY FOR FUNDED RESEARCH PROJECTS:

During his career, the candidate participated to 47 funded research projects: 12 (2 ongoing, 10 completed) funded by competitive research grants: in 4 of them he acted as PI in the others as responsible of the the Polimi research sub-unit or as co-investigator); 35 (6 ongoing, 29 completed) directly funded by private companies or public institutions. He has a rich and extensive experience in fundraising with institutions and private companies.

The collective assessment of the scientific responsibility for funded research projects is: 14 points out of 15 points

RESULTS OBTAINED IN TECHNOLOGY TRANSFER IN TERMS OF PARTICIPATION IN THE CREATION OF NEW ENTERPRISES (SPIN OFF), DEVELOPMENT, USE AND MARKETING OF PATENTS:

The candidate is co-inventor of a procedure for the analysis of a liquid sample with bubbles detection, which has been filed for patent the 19th of June 2021 by Thermo Fisher Scientific S.p.A. and Politecnico di Milano.

SCRUTINY OF THE DEGREE OF KNOWLEDGE OF THE ENGLISH LANGUAGE:

Excellent

THE SELECTION BOARD

Prof. SJÖSTEDT DE LUNA Sara (Chair)

Prof. HRON Karel (Member)

Prof. SECCHI Piercesare (Secretary)

The image shows three handwritten signatures on horizontal lines. The top signature is in black ink and reads 'Sara Sjöstedt de Luna'. The middle signature is in blue ink and reads 'Karel Hron'. The bottom signature is in black ink and reads 'Piercesare Secchi'.



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ATTACHMENT No. 2 to the FINAL REPORT

MERIT RANKING

SURNAME AND NAME	Overall score
Vantini Simone	91
leva Francesca	83

Milan, July 1st 2024

THE SELECTION BOARD

Prof. SJÖSTEDT DE LUNA Sara (Chair)

Prof. HRON Karel (Member)

Prof. SECCHI Piercesare (Secretary)

