

Matúš Maciak

Curriculum Vitae

(Update: January 2026)

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Personal Details

Date of Birth	20th of June, 1982	Citizenship	Slovak Republic
Place of Birth	Poprad, Slovakia	Permanent Residency	Czech Republic

Education History

2011	RNDr. (Doctor of Natural Sciences) in Probability and Mathematical Statistics, <i>Faculty of Mathematics and Physics</i> , Charles University, Czech Republic.
2006–2011	Ph.D. in Probability and Mathematical Statistics, <i>Faculty of Mathematics and Physics</i> , Charles University, Czech Republic.
2007–2008	M.Sc. in Biostatistics, <i>Centrum for Statistics</i> , Hasselt University, Belgium.
2001–2006	Mgr. (master degree) in Probability, Mathematical Statistics and Econometrics, <i>Faculty of Mathematics and Physics</i> , Charles University, Czech Republic.

Final Theses & Supervisors

PhD. Thesis	Flexibility, Robustness, and Discontinuity in Nonparametric Regression Approaches	
Supervisor	Prof. RNDr. Marie Hušková, DrSc., Charles University	(Defended in 2011)
Rigorous Thesis	Flexibility, Robustness, and Discontinuity in Nonparametric Regression Approaches	
Supervisor	Prof. RNDr. Marie Hušková, DrSc., Charles University	(Granted in 2011)
Master (MSc.)	Spline models with change-points applied to seroprevalence data	
Supervisor	Prof. Dr. Marc Aerts & Prof. Dr. Niel Hens, University of Hasselt	(Defended in 2008)
Master (Mgr.)	Additive Regression Models with Regression Splines	
Supervisor	Doc. Petr Volf, CSc., UTIA, Czech Academy of Sciences	(Defended in 2006)

Research Stays (long-term)

09/2012– 12/2013	University of Alberta , <i>Faculty of Sciences</i> , Edmonton, AB, Canada. Post Doc Fellow (1.5 years)
09/2007– 09/2008	Universiteit Hasselt , <i>Faculty of Sciences</i> , Hasselt, Belgium. Erasmus master program in Biostatistics (1 year)

Research Stays (short-term)

07/2020– 09/2020	Technische Universität Dresden , <i>School of Transportation</i> , Dresden, Germany. Scientific collaboration with Prof. Ostap Okhrin (2 months)
08/2018– 09/2018	University of Alberta , <i>Faculty of Sciences</i> , Edmonton, Canada. Scientific collaboration with Prof. Ivan Mizera & Prof. Linglong Kong (1 month)
05/2007– 05/2007	Universität Hamburg , <i>Faculty of Mathematics</i> , Hamburg, Germany. Scientific collaboration with Prof. Natalie Neymeyer (1 month)

Professional Experience

2023–present	Associate Professor , <i>Charles University</i> , Faculty of Mathematics and Physics. Department of Probability and Mathematical Statistics
2015–2023	Assistant Professor , <i>Charles University</i> , Faculty of Mathematics and Physics. Department of Probability and Mathematical Statistics
2014–2015	Research Assistant , Czech University of Life Sciences Prague. Department of Genetics and Breeding
2010–2013	Data Analyst and Statistician , <i>T.G. Masaryk Water Research Institute</i> , Prague. Department of Applied Ecology
2007–2009	Teaching Assistant , <i>Charles University</i> , Faculty of Mathematics and Physics. Department of Probability and Mathematical Statistics

Research Grants (principal investigator)

2021–2023	Advanced Econometric Models for Option Pricing II – AdEMOP2 , Grant number: GAČR 21-10768S standard grant	(3 years).
2018–2020	Advanced Econometric Models for Option Pricing – AdEMOP , Grant number: GAČR 18-00522Y junior grant	(3 years).
2017–2018	Change-point Estimation in Quantile Regression , Grant number: 7AMB17FR030, provided by MŠMT Czech Republic mobility grant	(2 years).
2022	Functional Changepoint Detection III , Centre for Strategic Partnership, Charles University/University of Cologne mobility grant	(1 year).
2021	Functional Changepoint Detection II , Centre for Strategic Partnership, Charles University/University of Cologne mobility grant	(1 year).

Research Grants – team member (selection)

2023–2025	Sparse solutions of underdetermined systems: retroactive applications, algorithms, inference, and new perspectives . Team member; Grant number: GAČR 21-13323S
2021–2023	Micro Forecasting and Regime Switching in Econometrics – MiFReSE . Team member; Grant number: GAČR 21-13323S
2018–2020	Dynamic and granular loss reserving with copulae – DaGLoRCo . Team member; Grant number: GAČR 18-01781Y
2010–2011	Metodické řízení monitoringu a hodnocení stavu útvarů povrchových vod tekoucích . Team member; Grant provider: State Environmental Fund of the Czech Republic

Invited & plenary talks (selection)

Universities & Institutions	Canada: • McGill • UBC • BIRS • University of Montreal • University of Alberta Germany: • Universität zu Köln • University of Hamburg Italy: • European Commission Joint Research Centre in Ispra Slovakia: • Slovak Academy of Sciences • Matej Bel University Sweden: • Uppsala University United Kingdom: • SEPA – Scottish Environmental Protection Agency in Edinburgh Czech Republic: • Masaryk University • Palacký University Olomouc • Ernst & Young
Conferences & Workshops	2026: • Plenary talk at the ROBUST conference 2025: • CMStatistics, UK • HiTEc Workshop, Cyprus 2024: • SMSA Workshop on Stochastic models, Netherlands, HiTEc Workshop, Cyprus 2023: • Paris-Saclay Change-Point Workshop, France 2022: • CMStatistics, UK • Econometrics and Statistics (EcoSta), Japan 2021: • CMStatistics, UK • EcoSta, HongKong (virtual) 2020: • Statistics of Machine Learning (STAT-ML), Czech Republic 2019: • CMStatistics, UK • EcoSta, Taiwan • Greifswald Change Point Workshop, Germany

Professional Collaboration (selection)

Econometrics & Insurance	Profinit EU Ltd., Boston Consulting Group, Generali Česká Pojišťovna, Ernst & Young , Czech Republic; ETP Slovakia , Slovakia;
Medicine & Pharmacology	Mayo Clinic , Rochester, USA; F.D. Roosevelt Hospital, Central Military Hospital, University Hospital Martin , Slovakia; Motol University Hospital , Czech Republic;
Biology & Ecology	European Commission Joint Research Centre , Italy; Scottish Environment Protection Agency , Ireland; Bundesministerium für Land- und Forstwirtschaft , Austria;
Technology & Industry	Škoda Auto , Czech Republic; České Dráhy Railway Company , Czech Republic; T. G. Masaryk Water Research Institute , Czech Republic;

Scientific Activities (selection)

Elected member	Academic Senate of the Faculty of Mathematics and Physics (2017 – 2020; 2023 – 2029), European Regional Committee (ERC) of the Bernoulli Society (2019 – 2020)
Organizer	Invited session organizer for HiTEc Workshop 2025, 2024; CompStat 2023 – 2024; CMStatistics 2021 – 2025; and EcoSta 2019 – 2023 Organizing committee member for GOFCP 2025; Probastat 2024, 2019, and 2015; EYSM 2015; SSC 2013; Prague Stochastics 2010; ICORS 2010
Associate editor	Journal of the American Statistical Association, The American Statistician Journal
Reviewer	ASTIN Bulletin, Canadian Journal of Statistics, Economic Modelling Journal, Journal of Statistical Planning and Inference, Journal of Computational and Applied Mathematics, Kybernetika, Multivariate Statistics Journal, Scandinavian Journal of Statistics, Metrika, Biometrics, Statistical Papers, Tatra Mountains Journal, and many others
Editor	Festschrift in Honour of Marie Hušková, Springer, 2025 AMISTAT Springer Proceedings in Mathematics and Statistics 2019; 2015

Research Keywords (selection)

big data, dependent structures, machine learning, statistical learning, atomic pursuit
nonparametric regression, regularities, instabilities, and structural breaks, robustness
sparsity, regularization, variable selection, lasso, weak dependence, bootstrap
empirical econometrics, derivative trading, volatility estimation, option pricing

Publication Activity

WoS	31 publications with 218 citations (without auto-citations 257 in total)
Scopus	32 publications with 216 citations (without auto-citations 256 in total)
h-index	9 (Web of Science)

Supervised Theses

Ph.D.	consultant of 2 students
Master/Bachelor	8/18 defended, 3/4 in progress

Personal Skills

Programming	SAS, R, S-Plus, SPSS, Matlab, Mathematica, PHP, html, WealthLab, T _E X, L ^A T _E X, etc.
Memberships	Bernoulli Society, Czech National Group of the International Society for Clinical Biostatistics, Czech Statistical Society, Alpine Club of Canada, National Geographic Society
Interests	Wedding and coverage photography, mountaineering and sport activities, literature and blog publications, former online SME/Denník N blog administrator

Software

R packages ProfileLadder package (v0.2.2) for a functional-based claims reserving
<https://CRAN.R-project.org/package=ProfileLadder>

Awards

Top 10 Elite Publication Maciak, M., Okhrin, O., and Pešta, M. Infinitely stochastic micro reserving.
Insurance: Mathematics and Economics, 100(2021), 30–58.
Awarded by the Council of the project Cooperatio – Mathematics, 2021

Languages

fluent English (spoken & written), Czech (spoken & written), Slovak (mother tongue)
fair German (spoken and written)
in progress Spanish (beginner)

Scientific Identifiers

ResearcherID D-7836-2016
Scopus ID 55376734200
Orchid ID 0000-0002-9414-2151

Prague, January 2026