

# Matúš Maciak

## Curriculum Vitae

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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**,  
*Faculty of Mathematics and Physics*, Charles University, Czech Republic.
- 2006–2011 **Ph.D. in Probability and Mathematical Statistics**,  
*Faculty of Mathematics and Physics*, Charles University, Czech Republic.
- 2007–2008 **M.Sc. in Biostatistics**,  
*Centrum for Statistics*, Hasselt University, Belgium.
- 2001–2006 **Mgr. (master degree) in Probability, Mathematical Statistics and Econometrics**,  
*Faculty of Mathematics and Physics*, Charles University, Czech Republic.

### Final Theses & Supervisors

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

### Research Stays (long-term)

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

### Research Stays (short-term)

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

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## Professional Experience

- 2023–present **Associate Professor**, *Charles University*, Faculty of Mathematics and Physics.  
Department of Probability and Mathematical Statistics
- 2015–2023 **Assistant Professor**, *Charles University*, 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**, *T.G. Masaryk Water Research Institute*, Prague.  
Department of Applied Ecology
- 2007–2009 **Teaching Assistant**, *Charles University*, Faculty of Mathematics and Physics.  
Department of Probability and Mathematical Statistics

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## Research Grants (principal investigator)

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

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## 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

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## 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	<b>Profinit EU Ltd.</b> , <b>Boston Consulting Group</b> , <b>Generali Česká Pojišťovna</b> , <b>Ernst &amp; Young</b> , Czech Republic; <b>ETP Slovakia</b> , Slovakia;
Medicine & Pharmacology	<b>Mayo Clinic</b> , Rochester, USA; <b>F.D. Roosevelt Hospital</b> , <b>Central Military Hospital</b> , <b>University Hospital Martin</b> , Slovakia; <b>Motol University Hospital</b> , Czech Republic;
Biology & Ecology	<b>European Commission Joint Research Centre</b> , Italy; <b>Scottish Environment Protection Agency</b> , Ireland; <b>Bundesministerium für Land- und Forstwirtschaft</b> , Austria;
Technology & Industry	<b>Škoda Auto</b> , Czech Republic; <b>České Dráhy Railway Company</b> , Czech Republic; <b>T. G. Masaryk Water Research Institute</b> , 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; Probstat 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 <sub>E</sub> X, L <sub>A</sub> T <sub>E</sub> 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   Maciak, M., Okhrin, O., and Pešta, M. Infinitely stochastic micro reserving.  
Publication   *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