Ondřej Tichý, Curriculum Vitae (01/2024)

BORN	1985 in Hradec Králové, Czech republic

PROFESSIONAL CONTACT INFORMATION

Pod Vodárenskou Věží 4
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Czech republic

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EDUCATION

Czech Technical University,
Faculty of Nuclear Sciences and Physical Engineering,
Prague, Czech republic

Ph.D. degree, Mathematical Engineering, **2010 − 2015**
- Doctoral thesis: "Bayesian Blind Source Separation in Dynamic Medical Imaging"
- Supervisor: doc. Ing. Václav Šmídl, Ph.D.

Bc. (equiv. to BSc.) and Ing. (equiv. to M.Sc.), Engineering Informatics, **2005 − 2010**
- Master thesis: "Integral models for dynamic renal scintigraphy"
- Supervisor: Ing. Václav Šmídl, Ph.D.

Czech Technical University,
Masaryk Institute of Advanced Studies,
Prague, Czech republic

Bc. (equiv. to BSc.), Technical Teacher Education, **2010 − 2013**
- Bachelor thesis: "Model preparation for technical subject teaching"
- Supervisor: Ing. Pavel Andres, Ph.D.

PROFESSIONAL EXPERIENCE

Institute of Information Theory and Automation, **2010 − now**
Czech Academy of Sciences,

Ph.D. student (from 2010), PostDoc (since 2015), Research Associate (since 2018)
- Research in topics related to bayesian modeling and estimation (inverse problems in atmospheric modeling and blind source separation problems)

National Radiation Protection Institute, **2013 − now**
Research engineer and developer (part time)

- Tools development for Hazardous Radioactivity Propagation (HARP) model

Faculty of Informatics, CTU, **2018 − now**
External lecturer

- Bayesian methods in machine learning, Machine learning 1

College of Polytechnics Jihlava, **2017 − 2022**
Lecturer (Programing of technical computations, Technical computations and simulations)

Faculty of Nuclear Sciences and Physical Engineering, CTU, **2008 − 2014**
Department of Mathematics,

Tutorials teaching in: (Principles of Algorithms (2009, 2010, 2011, 2012), Programming in C++ 1 (2009), Principles of Programming (2010, 2011, 2012), Calculus (2012, 2013, 2014), Teaching within

university of the third age (basic and advance computers, 2008–2013))

RESEARCH INTERESTS	Bayesian approximation and modeling, modeling of uncertainty, analysis of dynamic medical data, inverse problems in atmosheric modeling

RESEARCH PROJECTS

- 2024-2026: Advanced Bayesian methods for estimation of atmospheric pollutant sources, GA24-10400S (principal investigator)
- 2023: Scientific development of a source term estimator tool (CTBTO Ref. No.: 2023-0052/JIBRIL)
- 2020-2022: Bayesian methods for non-linear blind inverse problems, GA20-27939S (team member)
- 2018-2020: New Atmospheric Transport and Dispersion Modeling System for Radionuclides, TK01010142 (team member)
- 2017-2018: Bayesian regularization and inference for linear and bilinear models, L100751701 (principal investigator)
- 2014-2017: Source-Term Determination of Radionuclide Releases by Inverse Atmospheric Dispersion Modelling, 7F14287 (team member)
- 2013-2016: Image Blind Deconvolution in Demanding Conditions, GA13-29225S (team member)

SUPERVISION ACTIVITIES

- Bachelor thesis: Lenka Bódiová (2016), Karel Hybner (2017), Tomáš Brisučiak (2019), Václav Lamich (2020), Lukáš Kysilka (2021)
- Master thesis: Lenka Bódiová (2018), Karel Hybner (2019), Tomáš Brisučiak (2022), Ondřej Chládek (2023), Tomáš Kořistka (2023)

COMPUTER SKILLS

- Math & science software: Matlab, Maple, Mathematica
- Languages: Pascal, C, C++, Perl, Python
- Applications: LaTeX, LyX, MS Office (ECDL certificate)

AWARDS AND SCHOLARSHIPS

- Otto Wichterle Award in 2019
- Best application paper awards at the Institute of Information Theory and Automation in 2018 and 2021
- Best paper award (1st place) at the Institute of Information Theory and Automation in 2015
- Rektorys Award in Applied Mathematics (2nd place in 2012, 1st place in 2014)
- Stanislav Hanzl Foundation scholarship for CTU students (in 2011, 2012, 2013, 2014)
- Werner von Siemens Excellence Award 2010 (master thesis, 1st place)
- Silver plaque of prof. MUDr. Jan Jánský (blood donation)

CITATIONS AND INDEXES

- WOS: total citations 156, h-index 7
- SCOPUS: total citations 193, h-index 8

PUBLICATIONS

See full list at http://www.utia.cas.cz/people/tich

REVIEWS FOR

Journal of Hazardous Materials, Atmospheric Chemistry and Physics, Geoscientific Model Development, IEEE Transactions on Image Processing, IEEE Transactions on Medical Imaging, Digital Signal Processing, Environmental Pollution, IEEE Signal Processing Letters, IET Image Processing, EURASIP Journal on Advances in Signal Processing, Neural Network World, Applications of Mathematics, IEEE Access, IEEE Open Journal of Signal Processing, IEEE Journal of Biomedical and Health Informatics, Software X, Atmosphere, Journal of Environmental Radioactivity, Sustainability, International Journal of Environmental Research and Public Health, Building and Environment, Environmental Pollution