

## Ondřej Tichý, Curriculum Vitae (11/2024)

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BORN	1985 in Hradec Králové, Czech republic	
PROFESSIONAL CONTACT INFORMATION	Pod Vodárenskou Věží 4 18208, Prague 8 Czech republic	<i>Telephone:</i> 266052307 <i>Email:</i> otichy@utia.cas.cz
EDUCATION	<b>Czech Technical University, Faculty of Nuclear Sciences and Physical Engineering,</b> Prague, Czech republic	
	Ph.D. degree, Mathematical Engineering,	<b>2010 – 2015</b>
	<ul style="list-style-type: none"><li>• Doctoral thesis: “Bayesian Blind Source Separation in Dynamic Medical Imaging”</li><li>• Supervisor: doc. Ing. Václav Šmídl, Ph.D.</li></ul>	
	Bc. (equiv. to BSc.) and Ing. (equiv. to M.Sc.), Engineering Informatics,	<b>2005 – 2010</b>
	<ul style="list-style-type: none"><li>• Master thesis: “Integral models for dynamic renal scintigraphy”</li><li>• Supervisor: Ing. Václav Šmídl, Ph.D.</li></ul>	
	<b>Czech Technical University, Masaryk Institute of Advanced Studies,</b> Prague, Czech republic	
	Bc. (equiv. to BSc.), Technical Teacher Education,	<b>2010 – 2013</b>
	<ul style="list-style-type: none"><li>• Bachelor thesis: “Model preparation for technical subject teaching”</li><li>• Supervisor: Ing. Pavel Andres, Ph.D.</li></ul>	
PROFESSIONAL EXPERIENCE	<b>Institute of Information Theory and Automation, Czech Academy of Sciences,</b>	<b>2010 – now</b>
	<i>Ph.D. student (from 2010), PostDoc (since 2015), Research Associate (since 2018)</i>	
	<ul style="list-style-type: none"><li>• Research in topics related to bayesian modeling and estimation (inverse problems in atmospheric modeling and blind source separation problems)</li></ul>	
	<b>National Radiation Protection Institute,</b> <i>Research engineer and developer (part time)</i>	<b>2013 – now</b>
	<ul style="list-style-type: none"><li>• Tools development for Hazardous Radioactivity Propagation (HARP) model</li></ul>	
	<b>Faculty of Informatics, CTU,</b> <i>External lecturer</i>	<b>2018 – now</b>
	<ul style="list-style-type: none"><li>• Bayesian methods in machine learning, Machine learning 1</li></ul>	
	<b>College of Polytechnics Jihlava,</b> <i>Lecturer (Programing of technical computations, Technical computations and simulations)</i>	<b>2017 – 2022</b>
	<b>Faculty of Nuclear Sciences and Physical Engineering, CTU, Department of Mathematics,</b>	<b>2008 – 2014</b>
	<i>Tutorials teaching in:</i> (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 atmospheric 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), Michal Uliáš (in progress), Kiro Kostov (in progress)
- Master thesis: Lenka Bódiová (2018), Karel Hybner (2019), Tomáš Brisučiak (2022), Ondřej Chládek (2023), Tomáš Kořistka (2023), David Zeman (in progress)

COMPUTER SKILLS

- Math & science software: Matlab, Maple, Mathematica
- Languages: Pascal, C, C++, Perl, Python
- Applications: L<sup>A</sup>T<sub>E</sub>X, 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)
- Gold plaque of prof. MUDr. Jan Jánský (blood donation)

CITATIONS AND  
INDEXES

- WOS: total citations 209, h-index 8
- SCOPUS: total citations 236, 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