# M.Sc. Vít PÁSZTO, Ph.D.



## Personal information
Date of birth:                       02.02.1985
Citizenship:                       Czech Republic

## Education
2015        **Ph.D.** in Geoinformatics and Cartography from Palacký University Olomouc, Czech Republic (thesis title "Spatial Information and Selected Geocomputational Methods for its Evaluation")

2009        **M.Sc.** in Geoinformatics from Palacký University Olomouc, Czech Republic (thesis title "Geoinformatic Solution of Spatial Entropy of Climatic Phenomena"; with honours)

2007        **B.Sc.** in Geography and Geoinformatics from Palacký University Olomouc, Czech Republic (thesis title "Cartographic project of Atlas of the Becva River Catchment")

## Professional experience (academic position)
2015–present     Palacký University Olomouc (Czech Republic), Department of Geoinformatics, full-time, assistant professor (50 % teaching, 40 % research, 10 % other activities)

2015–present     Moravian University College Olomouc (Czech Republic), Department of Informatics and Applied Mathematics, part-time, assistant professor (35 % teaching, 35 % research, 30 % fundraising)

## Professional experience (position on project)
2012–2015     Palacký University Olomouc (Czech Republic), EU ESF Fund project "StatGIS Team" (Building of Research Team in the Field of Environmental Modeling and the Use of Geoinformation Systems with the Consequence in Participation in International Networks and Programs), CZ.1.07/2.3.00/20.0170, junior researcher

## Project leadership
2016-2019     Principal investigator of the project „Spationomy" (Spatial Exploration of Economic Data - methods of intetrdisciplinary analytics), Erasmus+, KA2 Strategic partnership, no. 2016-1-CZ01-KA203-024040, partners – University of Maribor (Slovenia), Ruhr-Universitaet Bochum (Germany), Palacký University Olomouc and Moravian University College Olomouc (Czech Republic)

2016-2017     Coordinator of the GeoSpatial Summer School 2017 (G3S), Visegrad Fund, no. 21610453, partners – Pavol Jozef Šafárik University in Košice (Slovakia), University of Wroclaw (Poland), Eötvös Loránd University Budapest (Hungary), Palacký University Olomouc (Czech Republic)

## Project activities
2017-2020     Team member of the project „EduChange" (Making knowledge together - addressing climate change through innovative place based education and blended learning), Erasmus+, KA2 Strategic partnership, partners – University of Malta (Malta), Utrecht University (Netherlands), Norwegian University of Science and Technology (Norway), Palacký University Olomouc (Czech Republic)

2016-2017     Team member of the project „GoGo Gozo" (Field-based learning: multidisciplinary mobile mapping methods), Erasmus+, KA2 Strategic partnership, partners – University of Manchester (UK), Warwick University (UK), Utrecht University (Netherlands), University of Malta (Malta), Palacký University Olomouc (Czech Republic)

2016        Researcher in the project "Six cities" (Advanced monitoring, spatial analysis and visualization of urban landscape), Integral grant agency of Palacký University Olomouc (Czech Republic), no. IGA_PRF_2016_008

| 2014 | Researcher in the project "Modelling of socio-economic phenomena using modern trends in geoinformatics", Palacký University Olomouc (Czech Republic), no. FRUP_2014_2_104 |
| 2010-2013 | Team member of the project „Geocomputation" (Improving the competitiveness of geoinformatics students by the innovation of the study with the use of computationally demanding methods of statistical modelling, chaos, fuzzy and fractal theory), EU ESF Fund, no. CZ.1.07/2.2.00/15.0276 |
| 2009-2011 | Team member of the project „OLINA" (Touristic multimedia guide in Olomouc for mobile ICT), EU ERDF Fund, no. CZ.1.12/3.1.00/14.00664 |

## Teaching
- **Palacký University Olomouc** – currently Geographic Information Systems, Geoinformatics, Human Geography, Geographical project, Physical Geography, New Issues of Geosciences (for Erasmus students); previously Basics of Informatics, Thematic Cartography, GIS in Human Geography, Spatial Analyses and Modelling
- **Moravian University College Olomouc** – currently Computer Networks, HTML and Web Resources, Advanced Visualisation of Economic Data, Informatics for Economists (all for Erasmus students); previously Informatics for Economists (for Czech students), Web Technologies, Data Transfers

## Supervision
- **B.Sc. and M.Sc. graduates under my official supervision** – Zdeněk Volčko (B.Sc., 2011), Daniela Čepová (B.Sc., 2012), Sylvie Hartmannová (B.Sc., 2013), Olga Večeřová (B.Sc., 2014), Michal Kantor (B.Sc., 2015), Milada Šejnohová (B.Sc., 2015), Jiří Režňák (B.Sc., 2016), Martina Ďásková (B.Sc., 2016), Barbora Štefánová (B.Sc., 2016), Petra Stískalová (B.Sc., 2017), Tomáš Tuháček (B.Sc., 2017), Barbora Švarcová (M.Sc., 2017)
- **B.Sc. and M.Sc. students currently under my official supervision (all graduating in 2018)** – Daniel Pavlačka (B.Sc.), Bohumil Gartner (B.Sc.), Petra Havlová (M.Sc.), Eliška Vlčková (M.Sc.)

## Scientific stays
| 04/2017 | University of Turku, Turku, Finland |
| 05/2015 | University of Iceland, Reykjavík, Iceland |
| 01-02/2015 | University of Canterbury, Christchurch, New Zealand |
| 06/2014 | University of Belgrade, Belgrade, Serbia |
| 01-02/2013 | University College London, London, United Kingdom |
| 11/2012 | Norwegian School of Economics, Bergen, Norway |
| 08-09/2012 | Matej Bel University, Banská Bystrica, Slovakia |
| 07-08/2012 | University of West Hungary, Székesfehérvár, Hungary |
| 09/2011 | University of Belgrade, Belgrade, Serbia |
| 03/2010 | University of West Hungary, Székesfehérvár, Hungary |

## Publications (selection)
- **Scientometrics:**
- Web of Science: 21 records, 40 citations (without self-citations), H-index of 4
- Scopus: 30 records, 35 citations (without self-citations), H-index of 4
- **Publications in international peer-reviewed journals:**
- Marek, L. & Pászto, V. (2017). Spatio-temporal outbreaks of campylobacteriosis and the role of fresh-milk vending machines in the Czech Republic: a methodological study, *Geospatial Health*. 12:572 doi:10.4081/gh.2017.572
- Pánek, J., Marek, L., Pászto, V., & Valůch, J. (2017). The Crisis Map of the Czech Republic: the nationwide deployment of an Ushahidi application for disasters. *Disasters*. 41(4), 629–851, DOI: 10.1111/disa.12221
- Pánek, J., & Pászto, V. (2017). Emotional mapping in local neighbourhood planning: case study of Příbram, Czech Republic. *International Journal of E-Planning Research (IJEPR)*, 6(1), 1-22, DOI: 10.4018/IJEPR.2017010101
- Vaculík, M., Pászto, V., & Švarcová, B. (2017). Spatial distribution of innovation activities in the Czech Republic in 2010-2012, *Journal of International Studies*, 10(1), 123-134, DOI: 10.14254/2071-8330.2017/10-1/8
- Meixnerová, L., Menšík, M. & Pászto, V. (2017). Economic analysis and spatial arrangements of engineering SMEs performance in Olomouc region of Czech Republic, *Journal of International Studies*, 10 (1), 135-145, DOI: 10.14254/2071-8330.2017/10-1/9
- Pászto, V., Burian, J., Marek, L., Vozenilek, V., & Tucek, P. (2016). Membership of Czech municipalities to rural and urban areas: a fuzzy-based approach. *Geografie*, *121*(1), 156-186, ISSN: 1212-0014

- Marek, L., Tuček, P., & Pászto, V. (2015). Using geovisual analytics in Google Earth to understand disease distribution: a case study of campylobacteriosis in the Czech Republic (2008–2012). *International journal of health geographics*, *14*(1), 7, DOI: 10.1186/1476-072X-14-7
- Pászto, V., Brychtová, A., Tuček, P., Marek, L., & Burian, J. (2015). Using a fuzzy inference system to delimit rural and urban municipalities in the Czech Republic in 2010. *Journal of Maps*, *11*(2), 231-239, DOI: 10.1080/17445647.2014.944942
- Tucek, P., Pászto, V., & Vozenilek, V. (2009). Regular use of entropy for studying dissimilar geographical phenomena. *Geografie*, *114*(2), 117-129, ISSN: 1212-0014

- **Books and book chapters**
- Pászto, V. (2015). *Prostorová informace a vybrané metody geocomputation pro její hodnocení*. Univerzita Palackého v Olomouci, Vydavatelství UP, 156 s., ISBN 978-80-244-4821-3
- Burian, J., Pászto, V., Tuček, P., et al. (2013). *Geoinformatika při analýzách rurálního a urbánního prostoru*. Univerzita Palackého v Olomouci, Vydavatelství UP, 130 s., ISBN: 978-80-244-3783-5
- Pászto, V., Tuček, P., Marek, L., Kuprová, L., & Burian, J. (2010). Statistical inferences-visualization possibilities and fuzzy approach computing. *Advances in Geoinformation Technologies*, 163-178.

- **Publications in international peer-reviewed conference proceedings**
- Pánek, J., & Pászto, V. (2017, July). Crowdsourcing Mapping and Participatory Planning Support System: Case Study of Brno, Czechia. In *Advances in Cartography and GIScience: International Cartographic Conference* (pp. 61-73). Springer, Cham.
- Pánek, J., Pászto, V., Marek, L. (2017). Mapping emotions: spatial distribution of safety perception in the city of Olomouc, *The Rise of Big Spatial Data*, Lecture Notes in Geoinformation and Cartography, Springer, 211-224.
- Pászto, V., Burian, J., Pánek, J. & Macků, K. (2017). Mapping the economic data - Case studies and best practices. *17th International Multidisciplinary Scientific Geoconference,* SGEM 2017. 17(21), pp. 975-982.
- Králík, T., Pászto, V., Olschewski, D. & Tuček, P. (2017). Reflective 2D visualization of 3D objects using cartographic projection. *17th International Multidisciplinary Scientific Geoconference,* SGEM 2017. 17(21), pp. 1045-1052.
- Brychtová, A., Çöltekin, A., & Pászto, V. (2016). Do the Visual Complexity Algorithms Match the Generalization Process in Geographical Displays? *ISPRS-International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, 375-378.
- Burian, J., Pászto, V. & Havlová, P. (2016). Delimiting the central areas of the cities by using GIS methods. *16th International Multidisciplinary Scientific Geoconference,* SGEM 2016. vol. 1, pp. 633-640.
- Marek, L., Pászto, V., & Tuček, P. (2015). Bayesian Mapping of Medical Data. *In Modern Trends in Cartography* (pp. 489-505). Springer International Publishing.
- Pászto, V., Brychtová, A., & Marek, L. (2015). On Shape Metrics in Cartographic Generalization: A Case Study of the Building Footprint Geometry. In *Modern Trends in Cartography* (pp. 397-407). Springer International Publishing.
- Marek, L., Pászto, V. & Tuček, P. (2015). Using clustering in geosciences: Examples and case studies. *15th International Multidisciplinary Scientific Geoconference*, SGEM 2015, vol. 2, pp. 1207-1214.
- Sikorová, E., Meixnerová, L., Menšík, M., & Pászto, V. (2015). Descriptive Analysis and Spatial Projection of Performance among the Small and Middle Enterprises in the Olomouc Region in the Czech Republic in the Context of Accounting and Tax Legislation. *Procedia Economics and Finance*, *34*, 528-534.
- Marek, M., Miřijovský, J., Tuček, P. & Pászto, V. (2014). Surveying and analysis of the landslides using UAS remote sensing, *14th International Multidisciplinary Scientific Geoconference*, SGEM 2014, vol. 1, pp. 825-832.
- Pászto, V., Dařena, F., Marek, L. & Fusková, D. (2014). Spatial analyses of Twitter data – case studies, *14th International Multidisciplinary Scientific Geoconference*, SGEM 2014, vol. 1, pp. 785-792.
- Burian, J., Pászto, V. & Langrová, B. (2014). Possibilities of the definition of city boundaries in GIS – the case study of a medium-sized city, *14th International Multidisciplinary Scientific Geoconference*, SGEM 2014, vol. 3, pp. 777-784.
- Marek, L., Paszto, V., Tucek, P., & Dvorský, J. (2014). Spatial Clustering of Disease Events Using Bayesian Methods. In *DATESO*, CEUR Workshop Proceedings, 1139, pp. 25-34.
- Dvorský, J., Pászto, V., & Skanderová, L. (2014). Geodata Scale Restriction Using Genetic Algorithm. In *Innovations in Bio-inspired Computing and Applications* (pp. 215-223). Springer, Cham.
- Marek, L., Paszto, V., Dvorský, J., & Tucek, P. (2013). On Estimation of the Spatial Clustering: Case Study of Epidemiological Data In Olomouc Region, Czech Republic. In *DATESO,* CEUR Workshop Proceedings, 971, pp. 1-12.

- Paszto, V., Marek, L., & Tucek, P. (2013). Are Shape Metrics Useful for a Geocomputation? CORINE Land-Cover Analysis Case Study. In *DATESO,* CEUR Workshop Proceedings, 971, pp. 26-35.
- Pászto, V., Marek, L. & Hartmannová, S. (2013). Analyzing major cities of European Union member states using shape metrics, *13th International Multidisciplinary Scientific Geoconference*, SGEM 2013, vol. 1, pp. 313-320.
- Tuček, P., Tučková, M., Marek, L. & Pászto, V. (2013). Comparison of regression models with constraints in geodetical measurement, *13th International Multidisciplinary Scientific Geoconference*, SGEM 2013, vol. 1, pp. 343-354.
- Burian, J., Marek, L., Pászto, V., Tučková, M., Tuček, P., Zajíčková, L. & Chrudimská, J. (2013). Quantification of the threat of the transport infrastructure by selected natural hazards: case study in Zlinsky region, *13th International Multidisciplinary Scientific Geoconference*, SGEM 2013, vol. 1, pp. 535-542.
- Marek, L., Pászto, V., Tuček, P. & Sádovská, P. (2013). Space-time evaluation of health data: Case of Olomouc area, Czech Republic, *13th International Multidisciplinary Scientific Geoconference*, SGEM 2013, vol. 1, pp. 911-918.
- Brychtová, A., Pászto, V., Marek, L. & Pánek, J. (2013). Web-design evaluation of The Crisis Map of The Czech Republic using eye-tracking, *13th International Multidisciplinary Scientific Geoconference*, SGEM 2013, vol. 1, pp. 1065-1072.
- Pászto, V., Marek, L. & Sedoník, J. (2012). Fuzzy approach of rural and urban areas delimitiation in GIS, *12th International Multidisciplinary Scientific Geoconference*, SGEM 2012, vol. 2, pp. 1049-1056.
- Marek, L., Pászto, V. & Tuček, P. (2012). Spatial analyses of epidemiological data: case study in Olomouc region, *12th International Multidisciplinary Scientific Geoconference*, SGEM 2012, vol. 2, pp. 1155-1162.
- Pászto, V., Marek, L. & Tuček, P. (2011). Fractal Dimension Calculation for CORINE LandCover Evaluation in GIS – A Case Study. In *DATESO,* CEUR Workshop Proceedings, 706, pp. 196-205
- Tuček, P., Marek, L., Pászto, V., Janoška, Z., & Dančák, M. (2011). Fractal perspectives of GIScience based on the leaf shape analysis. In *GeoComputation Conference Proceedings*, pp. 169-176.

## Awards, Prizes and Honours

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| 2017 | International Cartographic Association Scholarship Award for International Cartographic Conference 2017 (Washington D.C., USA) |
| 2015 | Best Map Award of the leading peer-reviewed Journal of Maps for both academic content and cartographic quality of paper "Using a fuzzy inference system to delimit rural and urban municipalities in the Czech Republic in 2010" |
| 2009 | Master degree achievement with honours |
| 2009 | Department of Geoinformatics (Palacký University Olomouc, Czech Republic) Award for outstanding study performance and representation of the Department on student competitions |

## Memberships

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| 2009-present | Czech Cartographic Society |
| 2015-present | Czech Association for Geoinformation |
| 2015-present | Czech Geographic Society |

## Other academic and educational merits

- Reviewer of 8 scientific papers (for Open Geosciences, International Journal of Health Geographics, Geografie, Journal of Maps)
- Co-organiser of several conferences and summer schools held by Department of Geoinformatics, Palacký University Olomouc (e.g. StatGIS Conferences 2013, 2014; Geocomputation project summer schools in 2011-2013)
- Active propagator of GISciences during Palacký University Olomouc events (e.g. European Researcher's Night, GIS Day, Science and Research Exhibition)
- Founder and former head of NGO "Buď Geo…" organising children competition in geogames, GISciences seminar for high-school students, and fundraising for educational activities (e.g. Vodafone grant)
- Co-editor of web-based GIS magazine with nationwide outreach in Czech Republic (GISportal.cz)