

Fulbright Czech Republic Grantees in the U.S.



Expanding Czech-U.S. collaboration through exchange of talent and knowledge.

J. William Fulbright Commission Karmelitská 17 118 00 Prague 1, Czech Republic

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Fulbright Czech Republic

The J. William Fulbright Commission in the Czech Republic is a Czech-U.S. binational governmental organization based in Prague established in 1991. Its main mission is to enhance mutual understanding through educational contacts between the Czech Republic and the United States of America.

The Commission in cooperation with major stakeholders in regional education, higher education, and research develops and manages scholarships for students, lecturers and researchers, high school teachers, as well as NGO leaders and professionals.

The Commission is funded by the Czech Ministry of Education, Youth and Sports and the U.S. Department of State and it is supervised by the Czech Fulbright Board. The Board consists of ten members appointed by the Czech Ministry of Education and the U.S. Embassy in the Czech Republic. The U.S. Ambassador to the Czech Republic and the Minister of Education of the Czech Republic serve as the Honorary Co-Chairs of the Board.

The Commission is managed by the Executive Director together with 6 staff members. Annually, the Czech Fulbright Commission awards up to 100 scholarships to Czech and American citizens.

26 Czech scholars, students and NGO leaders featured in this catalogue, have received a Fulbright grant to the USA in the academic year 2024/2025 to conduct research and study projects, and to develop their professional skills.

Welcome to the world of the Czech Fulbright, where boundaries dissolve, diversity thrives and talents together with knowledge and hard work transcend geographical borders, cultural differences and disciplinary confines.



FULBRIGHT CZECH REPUBLIC GRANTEES IN THE U.S. 2024-25

Visiting Scholar Program

- 4 **Jan Bažant** Dramatic Arts
- 5 **Jan Blahůt** Engineering Geology
- 6 **Eva Holtanová** Climatology
- 7 Václav Klika Applied Mathematics
- 8 **Jiří Žák** Geology

Fulbright - Masaryk Program

- 9 Kristýna Bubeníková Entomology
- 10 Lucie Čejková Conspiracy Thinking
- 11 **Marie Drábková** Biology
- 12 **Marie Heřmanová** Social Anthropology
- 13 Jan Hrabovský Material Science and Engineering
- 14 Kateřina Jandová Ecosystem Ecology
- 15 **Jiří Kocián** Comparative Politics
- 16 **Michaela Koucká** Urban Planning
- 17 **Josef Kundrát** Education Psychology
- 18 **Anna Malečková** Quantitative Histology
- 19 **Jiří Němeček** Nano/micro-scale Material
- 20 Václav Novotný Transportation and Urban Planning

- 21 Nikola Páleníčková Accessible Communication
- 22 Karel Řezáč Plasma & High-Temperature Physics
- 23 **Matěj Satranský** Sustainable Agriculture
- 24 **Šimon Schierreich** Computational Social Choice
- 25 **Ondřej Stránský** Laser Shock Peening
- 26 **Tereza Veselská** Microbiology

Visiting Student Program

- 27 Lukáš Filippi
 - Music Education
- 28 Kryštof Novotný Acoustics
- 29 **Tereza Plíštilová** International Relations



SPECIALIZATION: Dramatic Arts, Puppet Arts

FULBRIGHT PROJECT TITLE: SCALE AND BALANCE, Greatness in US

FULBRIGHT PROJECT DESCRIPTION:

The theme of the research project is based on the relationship between society and technology and the mirroring of this relationship through the object, the puppet. At a time when most of the communication, entertainment and information reception in society takes place in virtual space, the puppet represents direct contact with physical material. The puppet itself in terms of form is technologically conditioned. Puppet theatre is based on the oldest rituals of humans, the animation of matter that occurs in it is the oldest form of magic.

KEY WORDS:

Theatre, puppet, material, art, giant

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Academy of Performing Arts in Prague, Department of Alternative and Puppet Theatre, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Connecticut, Department of Dramatic Arts, Storrs, Connecticut

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Bart. P. Roccoberton, Jr.

GRANT PERIOD: 02/2025 - 07/2025

Link to the university profile >> Link to the CV >>

Jan Bažant

Associate Professor, Guarantor of SP Scenography

Visiting Scholar Program

Academic training:

- Ph.D., 2013, Academy of Performing Arts in Prague
- M.A., 2007, Academy of Performing Arts in Prague
- B.A., 2005, Academy of Performing Arts in Prague

Professional background:

 As an artist, Jan Bažant has collaborated with a number of institutions such as the National Theatre, Czech Television, Czech Radio, Czech Centres, the Institute for the Study of Totalitarian Regimes and a number of non-profit organisations and private entities. Since 2019 he is representing DAMU at Czech Centre of International Theatre Institute. Jan Bažant is one of the founding members of the Hura collective, with whom he is opening an independent gallery and screen-printing workshop called Hygienic Station in autumn 2008. He is the leader of the giant puppet troupe Echt Street Puppets, active in Europe and Asia www.echtstreetpuppets.com. He has exhibited his work in Prague, Paris, Berlin, Dresden, Vienna, Moscow, Tokyo and Taipei. He has given numerous workshops in the Czech Republic, Germany, Poland, United Kingdom and Taiwan.

Selected publications:

- 2022 Puppets, Technology, Magic, Jan Bazant and collective, Kant, CZ
- 2019 La Danseuse du Mao, Hza Bazant and Olivier Richard, Edition Pika, Hachette Livre, FR
- 2018 ZOOOM 4 Hza Bažant, foreword Ivan Adamovic, Analphabet books, CZ
- 2015 Nusle, Hura Kolektiv, CZ
- 2012 Time Master Phantom Face, script Filip Novák, Hura Kolektiv, CZ

- 2021: Graphics of the year 2021 Award for Serigraphy "Together", Association of Czech Graphic Artists HOLLAR Prague
- 2020: National Theatre Critics' Award, Scenography of the Year 2020 for The Cabinet of Wonders or Orbis pictus, Naive Theatre Liberec, CZ
- 2016: Graphics of the year 2016 Award for serigraphy "Along the stream" Association of Czech Graphic Artists HOLLAR Prague
- 2015: Most Beautiful Czech Books of the Year 2015 for Book "Nusle" The National Museum of Czech Literature



Engineering Geology, Geomorphology, Slope Stability

FULBRIGHT PROJECT TITLE:

Analysis of Thermal-Induced Stresses on the Rock Stability

FULBRIGHT PROJECT DESCRIPTION:

This research project investigates the role of thermal stress in rocks as a driving factor for slope destabilization and rockfall triggering. It will investigate the factors and conditions that lead to slope instability. This will be done primarily through field measurements in Yosemite National Park, an area highly prone to rockfalls. In addition, numerical modeling will be conducted to account for the influence of ongoing climate change. The results of the project will contribute to a deeper understanding of temperature as a rockfall triggering factor and ultimately to reducing hazards and risks from rockfalls.

KEY WORDS:

Rock mass properties, thermal stress, thermohydro-mechanical modelling, rockfall triggering, climate change

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Academy of Sciences, Institute of Rock Stricture and Mechanics, Department of Applied Rock Mechanics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

U.S. Geological Survey, Landslide Hazards Program, Moffett Field, California

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES:

Brian D. Collins

GRANT PERIOD: 09/2024 - 02/2025

Link to the full CV >> Link to the university profile >>

Jan Blahůt

Researcher, Head of Department of Applied Rock Mechanics

Visiting Scholar Program

Academic training:

- Ph.D., 2010, University of Milano-Bicocca, Faculty of Mathematical, Physical and Environmental Sciences, Milan, Italy
- M.S., 2006, Charles University in Prague, Faculty of Sciences, Prague, Czech Republic

Professional background:

- Researcher, Head of Department of Applied Rock Mechanics, Institute of Rock Structure and Mechanics, Czech Academy of Sciences, Prague, Czechia, since 2024
- Postdoctoral Fellow and Researcher, Department of Engineering Geology, Institute of Rock Structure and Mechanics, Czech Academy of Sciences, Prague, Czechia, 2010-2023
- Early Stage Researcher, Department of Environmental and Territorial Sciences, University of Milano-Bicocca, Milan, Italy, 2007-2010

Selected publications:

- Blahůt J, Racek O (2023) Modern Methods of Rock Mass Characterisation and Rockfall Monitoring: A Review. In Thambidurai P, Singh TN (eds) Landslides: Detection, Prediction and Monitoring. Springer, Cham, pp. 1–38. https://doi.org/10.1007/978-3-031-23859-8_1
- Racek O, Blahůt J (2023) Rock Mass Characterization and Rockfall Monitoring: Traditional Approaches. In Thambidurai P, Singh TN (eds) Landslides: Detection, Prediction and Monitoring. Springer, Cham, pp. 39–69. https://doi.org/10.1007/978-3-031-23859-8_2
- Racek O, Blahůt J, Hartvich F (2021) Observation of the rock slope thermal regime, coupled with crackmeter stability monitoring: initial results from three different sites in Czechia (Central Europe). Geoscientific Instrumentation, Methods and Data Systems, 10: 203-218. https://doi.org/10.5194/gi-10-203-2021
- Loche M, Scaringi G, Blahůt J, Melis MT, Funedda A, Da Pelo S, Erbí I, Deiana G, Meloni MA, Cocco F (2021) An infrared thermography approach to evaluate the strength of a rock cliff. Remote Sensing 13(7): 1265. https://doi.org/10.3390/rs13071265

- 2024-2025: Czech Visiting Scholar Program, USGS, California, USA
- 2022: "Alexander von Humboldt" Short Term Grant Fellow, University of Bayreuth, Germany
- 2020: International Visiting Researcher Fellow, Massey University, Palmerston North, New Zealand
- 2020-present: Expert witness named by the Minister of Justice of the Czech Republic in the field of Mining, branch Geology, Specialisation in Engineering geology, Geomorphology, Stability of Slopes and Rock Walls
- 2007-2010: Early Stage Researcher within Marie Curie Research and Training Network and 6th EC Framework Programme Project: Mountain Risks: from prediction to management and governance



Climatology, Analysis of Climate Model Outputs and Development of Climate Change Scenarios, Evaluation of Uncertainties, Internal Climate Variability

FULBRIGHT PROJECT TITLE:

Internal Climate Variability Under Different Forcing

FULBRIGHT PROJECT DESCRIPTION:

The project will analyze the changes of internal climate variability under different forcing levels and its influence on hot and cold extremes over mid-latitude continentals in the Northern Hemisphere. Besides the importance for further research, the results will serve as a basis for more confident adaptation and mitigation strategies planning.

KEY WORDS:

Internal climate variability, extreme climatic events

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Faculty of Mathematics and Physics, Department of Atmospheric Physics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Colorado State University, Department of Atmospheric Science, Fort Collins, Colorado

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Maria Rugenstein

GRANT PERIOD: 02/2025 - 07/2025

Link to the full CV >> Link to the university profile >>

Eva Holtanová

Senior Assistant Professor of Mathematics

Visiting Scholar Program

Academic training:

- Ph.D., 2010, Charles University, Prague, Czech Republic
- M.S., 2006, Charles University, Prague, Czech Republic

Professional background:

- Assistant Professor, Faculty of Mathematics and Physics, Charles University, since 2011
- Researcher Climatologist, Czech Hydrometeorological Institute, 2006-2023

Selected publications:

- Holtanová, E., Belda, M., Crespo, N.M., Halenka, T. (2024): On the relation of CMIP6 GCMs errors at RCM driving boundary condition zones and inner region for Central Europe region. Climate dynamics. DOI: 10.1007/s00382-024-07216-z.
- Holtanová, E., Belda, M., Halenka, T. (2022): Projected changes in mean annual cycle of temperature and precipitation over the czech Republic: Comparison of CMIP5 and CMIP6. Frontiers in Earth Science 10:1018661. DOI: 10.3389/feart.2022.1018661.
- Holtanová, E., Mendlik, T., Koláček, J., Horová, I., Mikšovský, J. (2019): Similarities within a multi-model ensemble: functional data analysis framework. Geoscientific Model Development 12:735-747. DOI: 10.5194/gmd-12-735-2019.
- Crhová, L., Holtanová E. (2018): Simulated relationship between air temperature and precipitation over Europe: sensitivity to the choice of RCM and GCM. International Journal of Climatology 38: 1595–1604. DOI: 10.1002/joc.5256.
- Holtanová, E., Valeriánová, A., Crhová, L. (2015): Heat wave of August 2012 in the Czech Republic: Comparison of two approaches to assess high temperature events. Studia Geophysica et Geodaetica, 59: 159-172. DOI: 10.1007/s11200-014-0805-6.

- 2023: Visiting researcher at Department of Meteorology and Geophysics, Universität Wien, Vienna, Austria, one month, AKTION scholarship
- 2018: Visiting researcher at Wegener Center for Climate and Global Change, University of Graz, Graz, Austria, four months, AKTION scholarship



Applied Mathematics (Asymptotic Methods, Dynamical Systems), Nonequilibrium Thermodynamics

FULBRIGHT PROJECT TITLE:

Front Propagation in Non-normal Nonlinear Systems

FULBRIGHT PROJECT DESCRIPTION:

Our project delves into non-normal phenomena to enhance qualitative analysis of nonlinear systems, exploring its interplay with nonlinearity. We aim to understand how non-normality shapes system behavior, challenging linear stability analysis and investigating its impact on travelling fronts, aiming for a more insightful analysis.

KEY WORDS:

Nonnormality, dynamical systems, travelling waves, large-time behavior

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Department of Mathematics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of California Berkeley, Department of Physics, Berkeley, California

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Edgar Knobloch

GRANT PERIOD: 02/2025 - 06/2025

Link to the university profile >>

Václav Klika

Full Professor Visiting Scholar Program

Academic training:

- Ph.D., 2009, CTU in Prague, Czech Republic
- M.Eng., 2006, CTU in Prague, Czech Republic

Professional background:

- Professor in Applied Mathematics, CTU in Prague, since 2023
- Associate Professor, CTU in Prague, 2016-2023
- Assistant Professor, CTU in Prague, 2010-2016
- Researcher, Institute of Thermomechanics, AS CR, 2004-2015

Selected publications:

- Pavelka, M., Klika, V., & Grmela, M. (2018). Multiscale thermo-dynamics: introduction to GENERIC. Walter de Gruyter GmbH & Co KG.
- Klika, V., & Krause, A. L. (2018). Beyond Onsager–Casimir relations: shared dependence of phenomenological coefficients on state variables. The journal of physical chemistry letters, 9(24), 7021-7025.
- Van Gorder, R. A., Klika, V., & Krause, A. L. (2021). Turing conditions for pattern forming systems on evolving manifolds. Journal of mathematical biology, 82, 1-61.
- Klika, V., & Votinská, B. (2023). Towards systematic approach to boundary conditions in mixture and multiphasic incompressible models: Maximum Entropy principle estimate. International Journal of Engineering Science, 191, 103902.
- Klika, V., & Gaffney, E. A. (2023). Upscaling the Poisson-Nernst-Planck equations for ion transport in weakly heterogeneous charged porous media. Applied Mathematics Letters, 137, 108482.

- 2024-2025: Fulbright Visiting Scholar, University of California Berkeley
- 2017-2018: Marie Curie Sklodowska Action-IF in CTU a one-year stay at Mathematical Institute (EA Gaffney), University of Oxford
- 2011: the second place in Reinhart Heinrich Doctoral Thesis Award 2011 from European Society of Mathematical and Theoretical Biology
- 2010: Visiting Postdoctoral Research Assistantship award; Mathematical Institute, University of Oxford



SPECIALIZATION: Tectonics, Structural Geology, Rock Magnetism

FULBRIGHT PROJECT TITLE:

Tracking the Assembly of the Earth's Oldest Supercontinents

FULBRIGHT PROJECT DESCRIPTION:

The project will investigate the mechanisms, kinematics, and time scales of formation of Earth's oldest supercontinents. The field research will concentrate on a broad zone along margins of the Superior and Wyoming cratons, which may record their collision in the late Archean times (ca. 2.8-2.5 billions of years ago). An integrative approach using structural and microstructural analysis, magnetic anisotropy, and paleomagnetism then should provide key constraints on the style of continental deformation and to test whether supercontinents may have formed in the Archean, an issue that is central to our understanding on how our planet works and how it evolved through time.

KEY WORDS:

Archean, continental collision, craton, paleomagnetism, supercontinent

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Institute of Geology and Paleontology, Faculty of Science, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Minnesota Twin Cities, N.H. Winchell School of Earth and Environmental Sciences, College of Science and Engineering, Minneapolis, Minessota

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Christian Teyssier

GRANT PERIOD:

03/2025 - 07/2025

Link to the full CV >> Link to the university profile >>

Jiří Žák

Full Professor of Geology

Visiting Scholar Program

Academic training:

- Ph.D., 2004, Charles University, Prague, Czech Republic
- M.S., 2000, Charles University, Prague, Czech Republic
- Erasmus Fellowship, 1998, Royal School of Mines, Imperial College, London, UK
- B.S., 1997, Charles University, Prague, Czech Republic

Professional background:

- Vice-Dean for Geology, Faculty of Science, Charles University, 2020-2024
- Chair, Institute of Geology and Paleontology, Charles University, 2016-2020
- Full Professor, Charles University, since 2015
- Research Group Leader, since 2014
- Associate Professor, Charles University, 2010-2015

Selected publications:

- Tomek F, Žák J, Verner K, Ježek J, Paterson SR (2024) A complex interplay between pluton emplacement, tectonic deformation, and plate kinematics in the Cretaceous Sierra Nevada magmatic arc, California. Tectonics 43, Paper No. e2023TC007822.
- Somr M, Žák J, Kabele P, Tomek F (2023) Analysis of fracturing processes leading to caldera collapse. Earth-Science Reviews 241, Paper No. 104413.
- Žák J, Svojtka M, Sláma J, Tomek F, Kachlík V, Ackerman L, Vacek F, Trubač J (2023) Exploring the link between spatiotemporal patterns of plutonism and geodynamic regimes at the end of Archean: an example from the northeastern Superior Province, Canada. Precambrian Research 392, Paper No. 107073.
- Žák J, Tomek F, Svojtka M, Vacek F, Kachlík V, Ackerman L, Ježek J, Petronis MS (2021) Distributed crustal shortening followed by transpressional shearing in the Superior Province, northeastern Canada: a Late Archean analogy to modern accretionary plate margins? Precambrian Research 362, Paper No. 106322.
- Žák J, Svojtka M, Hajná J, Ackerman L (2020) Detrital zircon geochronology and processes in accretionary wedges. Earth-Science Reviews 207, Paper No. 103214.

- 2021, 2023: Radim Kettner Award for the best paper
- 2010: Giant Salamander Award for the best teacher
- 2010: Radek Melka Prize for the best paper, Central European Tectonic Studies Group
- 2006: Faculty of Science Dean's Award for research and teaching excellence



Entomology, Phylogenomics, Evolutionary Biology

FULBRIGHT PROJECT TITLE:

It Takes Three to Tango: The diversity and evolution of Genus Torymus in Tritrophic interactions with oaks and oak gall wasp communities in North America

FULBRIGHT PROJECT DESCRIPTION:

Parasitoids significantly influence ecological interactions. My project investigates tritrophic interactions involving Torymus genus, gall wasp, and oak in North America. Using morphological, ecological, and genomic methods, it explores Torymus species' ecological-evolutionary dynamics, diversification, and host shift drivers. The findings will contribute to understanding biodiversity and its evolution amid current biodiversity decline.

KEY WORDS:

Evolution, torymus, oak gall wasps, tritrophic interactions

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Department of Zoology, Faculty of Science, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

The University of Iowa, College of Liberal Arts and Sciences, Department of Biology, Iowa City, Iowa

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Andrew Forbes

GRANT PERIOD: 11/2024 - 07/2025

Link to the university profile >>

Kristýna Bubeníková

Ph.D. student

Fulbright-Masaryk Program

Academic training:

- M.S., 2018, Faculty of Science, Charles University, Prague, Czech Republic
- B.A., 2016, Faculty of Science, Charles University, Prague, Czech Republic

Professional background:

• Doctoral study, Programme Zoology, Faculty of Science, Charles University, since 2018

Selected publications:

- Cruaud, A., Rasplus, J.-Y., Zhang, J., Burks, R., Delvare, G., Fusu, L., Gumovsky, A., Huber, J. T., Janšta, P., Mitroiu, M-D., Noyes, J. S., van Noort, S., Baker, A., Böhmová, J., Baur, H., Blaimer, B. B., Brady, S. G., Bubeníková, K., Chartois, M., Copeland, R. S., Dale-Skey Papilloud, N., Dal Molin, A., Chryslyn Dominguez, C., Gebiola, M., Guerrieri, E., Kresslein, R. L., Krogmann, L., Moriarty Lemmon, E., Murray, E. A., Nidelet, S., Nieves-Aldrey, J. L., Perry, R. K., Peters, R. S., Polaszek, A., Sauné, L., Torréns, J., Triapitsyn, S., Tselikh, E. V., Yoder, M., Lemmon, A. R., Woolley, J. B., & Heraty J. M. (2024). The Chalcidoidea bush of life Evolutionary history of a massive radiation of minute wasps. Cladistics, 40(1), 34-63.
- Bubeníková, K., Pujade-Villar, J., & Janšta, P. (2020). Description of Torymus lasallei, sp. nov. (Hymenoptera: Torymidae), a species with an unusual ovipositor. Journal of Natural History, 54(9-12), 791-800.

- 2018, 2019, 2022, 2023: Research stays in Dr. Ralph Peters Hymenoptera research group Leibniz- Institut zur Analyse des Biodiversitätswandels (LIB), Zoologisches Forschungsmuseum Alexander Koenig (ZFMK), Bonn, Germany
- 2023-present: Part of Czexpats in Science
- 2022-present: Academic Senator in the Academic Senate of Charles University
- 2011-present: Volunteer at the Volunteer Center of the University Hospital in Motol; currently volunteer at the Department of Pediatric Hematology and Oncology



Conspiracy Thinking, News Media Audiences

FULBRIGHT PROJECT TITLE:

Bridging the Gap Between Academia and the Public: The relationship of news media and conspiracy thinking

FULBRIGHT PROJECT DESCRIPTION:

The project aims to bridge the gap between academia and the public, focusing on the factors contributing to conspiracy thinking among news media audiences and transforming the results into outreach to the general public.

KEY WORDS:

Conspiracy thinking, news media, news literacy, science communication

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Masaryk University, Faculty of Social Studies, Department of Media Studies and Journalism, Brno

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Pennsylvania State University, Department of Film Production & Media Studies; News Literacy Initiative, University Park, Pennsylvania

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES:

Matthew Jordan

GRANT PERIOD: 09/2024 - 01/2025

Link to the full CV >> Link to the university profile >>

Lucie Čejková

Junior Researcher, Ph.D. student

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2026, Masaryk University, Brno, Czech Republic
- M.A., 2021, Masaryk University, Brno, Czech Republic
- B.A., 2019, Masaryk University, Brno, Czech Republic

Professional background:

- Masaryk University (since 2022), Junior Researcher in the field of conspiracies, disinformation, political polarization, news audiences
- Fakescape (since 2019), Media Literacy Lecturer, Team Leader of activities for older adults
- Deník Referendum (2020–2022), Climate Journalist, Analyst, Investigative Reporter for online daily news
- Česká televize (2017-2020), Co-editor of regional daily news broadcast

Selected publications:

- Čejková, L., & Macková, A. (2022). Unraveling the role of media in conspiracy thinking Insights from the Czech population [conference presentation]. Digital Media, Democracy and Civil Society in Central and Eastern Europe. Katowice, 8–9 January 2024.
- Čejková, L., & Macková, A. (2022). Awareness of fake news and counterstrategies in the Czech Republic [research report]. In Integrated report on trust and the media (pp. 84–108). EnTrust.
- Čejková, L. (2022, March 16). News media and ontological security: Media theory meets data [conference presentation]. Media Breakdown and Recovery: International Symposium, Lund University, Lund, Sweden.
- Macková, A., Novotná, M., Čejková, L., & Hrbková, L. (2023). One way or another? Discussion disagreement and attitudinal homogeneity on social networking sites as pathways to polarization in Czechia. Journal of Information Technology & Politics, 1–15.

- 2023: Shortlisted for Ekopublika Journalism Award, Environmental Journalism Category
- 2022: Dean's Award for Excellent M.A. Students, Faculty of Social Studies, Masaryk University
- 2021: Scholarship for Excellent M.A. Students, Faculty of Social Studies, Masaryk University
- 2021: Shortlisted for Czech Journalism Award, Solutions Journalism Category
- 2020–2021: Supported with a grant & mentoring programme for Solutions Journalism, Transitions



SPECIALIZATION: Biology, Phylogenomics, Parasitology

FULBRIGHT PROJECT TITLE:

Evolution and Origin of Tongue Worms (Pentastomida), Enigmatic Parasites of Vertebrates

FULBRIGHT PROJECT DESCRIPTION:

This project is going to investigate the position of Pentastomida (also known as tongue worms) in the tree of life based on genomic data and modern bioinformatic methods. It brings insights into evolutionary origins and implications of parasitism.

KEY WORDS:

Biology, phylogenomics, parasites, evolution

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

University of Hradec Králové, Faculty of Science, Department of Biology, Hradec Králové

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of California, Marine Science Institute, Santa Barbara, California

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Todd Oakley

GRANT PERIOD: 09/2024 - 01/2025

Link to the full CV >> Link to the university profile >>

Marie Drábková

University Teacher Fulbright-Masaryk Program

Academic training:

- Ph.D., 2022, University of South Bohemia, České Budějovice, Czech Republic
- M.A., 2013, University of South Bohemia, České Budějovice, Czech Republic
- B.A., 2011, University of South Bohemia, České Budějovice, Czech Republic

Professional background:

- Teaching assistant, Bioinformatics and Biology, Faculty of Science, University of Hradec Králové, since 2023
- Biologist, Parasitological Institute, Czech Academy of Sciences, České Budějovice, 2014-2019
- Teaching assistant, Molecular ecology, Faculty of Science, University of South Bohemia, 2017-2019
- Teaching assistant, Field course of marine biology, Faculty of Science, University of South Bohemia, 2015
- *career break: twins maternity leave, 2019-2023

Selected publications:

- Drábková M., Kocot, K.M, Halanych, K.M, Oakley, T.H, Moroz, L.L, Cannon, J.T, Kuris, A., Garcia-Vedrenne, A.E, Pankey, M.S, Ellis, E.A, Varney, R., Štefka, J., Zrzavý, J. (2022). Different phylogenomic methods support monophyly of enigmatic 'Mesozoa' (Dicyemida + Orthonectida, Lophotrochozoa). Proc Biol Sci. 289(1978):20220683. DOI: 10.1098/rspb.2022.0683.
- Drábková M., Flegrová, T., Myšková, E., Hypša, V., Štefka, J. (2021). Genetic analysis of dicyemid infrapopulations suggests sexual reproduction and host colonization by multiple individuals is common. Organisms Diversity & Evolution. 21. 1-10. 10.1007/s13127-021-00493-0.
- Drábková M., Jachníková N., Tyml T., Sehadová H., Ditrich O., Myšková E., Hypša V., Štefka J. (2019) Population co-divergence in common cuttlefish (Sepia officinalis) and its dicyemid parasite in the Mediterranean Sea. Scientific Reports 9 : 14300. DOI: 10.1038/s41598-019-50555-9
- Roumbedakis K., Drábková M., Tyml T., di Cristo C. (2019) A Perspective Around Cephalopods and Their Parasites, and Suggestions on How to Increase Knowledge in the Field. Frontiers in Physiology 9 : 1573. DOI: 10.3389/fphys.2018.01573

Fellowship, honors, etc.:

• 2022: Dean's prize for outstanding research presented in a Ph.D. thesis



Social Anthropology, Anthropology of Social Media

FULBRIGHT PROJECT TITLE:

Gendered Disinformation and Disinformation About Gender on Social Media

FULBRIGHT PROJECT DESCRIPTION:

The project addresses the growing concerns about the proliferation of disinformation, with a particular focus on the intersection of gender and disinformation. The aim of the project is to provide a theoretical foundation for the understanding of how gender not only shapes disinformation narratives but also influences how these narratives are contextualized and further propagated by users in relation to their gender identity.

KEY WORDS:

Social media, gender, disinformation, conspiracy theories

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Academy of Sciences, Institute of Sociology, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of North Carolina at Chapel Hill, Centre for Information, Technology and Public Life, Chapel Hill, North Carolina

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Alice E. Marwick

GRANT PERIOD: 09/2024 - 12/2024

Link to the full CV >> Link to the university profile >>

Marie Heřmanová

Researcher

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2018, Charles University, Prague, Czech Republic
- M.A., 2010, Charles University, Prague, Czech Republic
- B.A., 2007, Charles University, Prague, Czech Republic

Professional background:

- Researcher, Institute of Sociology, Czech Academy of Sciences, Department of Gender and Sociology, since 2022
- Lecturer, Faculty of Arts, Charles University Prague, since 2022
- Editor-in-chief, Gender a výzkum/Gender and Research journal, published by the Institute of Sociology, Czech Academy of Sciences, since 2022
- Postdoctoral researcher, Institute of Sociology, Czech Academy of Sciences, Department of Gender and Sociology, 2019-2022
- Researcher, Faculty of Humanities, Charles University Prague, 2019 2023
- Lecturer, UPCES Undergraduate Programme in Central European Studies, CERGE-EI (joint workplace of Charles University in Prague and the Czech Academy of Sciences), 2018-2022

Selected publications:

- Heřmanová, M. (2024). Authentic cult: media representations of cultural consumption and legitimization of cultural hierarchies. Media, Culture & Society, 46(3), 518-533. https://doi.org/10.1177/01634437231203880.
- Heřmanová, M, M. Skey and T. Thurnell-Read (eds.) (2022). Cultures of Authenticity. Emerald Publishing Limited, Bingley
- Heřmanová, M. (2022). Politicisation of the Domestic Populist Narratives About Covid-19 Among Influencers. Media and Communication 10(4), 180 -190, https://doi.org/10.17645/mac.v10i4.5736.
- Heřmanová, M. (2022). Sisterhood in 5D: Conspirituality and Instagram Aesthetics. M/C Journal, 25 (1). https://doi.org/10.5204/mcj.2875.
- Heřmanová, M. (2022). "We Are in Control": Instagram Influencers and the Proliferation of Conspiracy Narratives in Digital Spaces. Slovenský národopis / Slovak Ethnology, 70(3), 349-368. 1339-9357. https://doi.org/10.3157 7/SN.2022.3.29.

- 2021: visiting scholar School of Social Sciences and Humanities, Loughborough University, UK
- 2020: awarded funding under the scheme of excellence 'The Support of Promising Human Resources' at Institute of Sociology, Czech Academy of Sciences
- 2016: visiting fellow, Professional Fellows On Demand Capacity Building for NGOs, Washington DC, USA



SPECIALIZATION: Material Science, Engineering

FULBRIGHT PROJECT TITLE:

Effect of Temperature on Optical, Structural and Luminescence Properties of Selected Materials for Photonic Applications, Detectors and Sensors

FULBRIGHT PROJECT DESCRIPTION:

The project will be focused on temperaturedependent optical characterization and thermally in-situ induced structural changes monitored by optical, and photoluminescence methods using materials of high specific relevance for nonlinear optics (chalcogenide/tellurite glasses), mid-infrared detectors (In-Ga-Ar-Sb alloys), and photonic applications (rare earth doped materials, MoS₂ /MoSe₂/MoTe₂).

KEY WORDS:

Optical and magneto-optical properties, material science, photoluminescence, thermally induced, photonic applications

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Faculty of Mathematics and Physics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

New Mexico State University, Department of Physics, Las Cruces, New Mexico

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Stefan Zollner

GRANT PERIOD: 11/2024 - 7/2025

Link to the full CV >> Link to the university profile >>

Jan Hrabovský

Ph.D. candidate, Researcher

Fulbright-Masaryk Program

Academic training:

- Ph.D. candidate, 2024, Magneto-optics research Prague (MORP), Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic
- M.S., 2019, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic
- B.S., 2016, Faculty of Chemical Technology, University of Pardubice, Pardubice, Czech Republic
- Research assistant, Junior Researcher, 2017-2024, SLA research group, HiLASE Centre, Institute of Physics of the Czech Academy of Sciences
- Scientific collaboration, August October 2022, Group of magneto-optics, Nagaoka University of Technology, Japan
- Scientific collaboration, June 2022, Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB) Department of Photonics, University Bourgogne Franche Comte, Dijon, France
- Undergraduate Research, December 2017 June 2019, Department of General and Inorganic Chemistry, University of Pardubice, Pardubice, Czech Republic
- Undergraduate research, October 2017 June 2018, Department of magneto-optics, Institute of Physics, Charles University, Prague, Czech Republic
- Erasmus+ Internship, October December 2017, Laboratoire Interdisciplinaire Carnot de Bourgogne (ICB) - Department of Photonics, University Bourgogne Franche Comte, Dijon, France
- Undergraduate Research, 2014-2016, Department of General and Inorganic Chemistry, University of Pardubice, Pardubice, Czech Republic
- Internship, September 2012 June 2013, Department of Nanoparticles, Contipro a.s., Dolní Dobrouč, Czech Republic
- Internship, 2011-2013, Department of General and Inorganic Chemistry, University of Pardubice, Pardubice, Czech Republic

Professional background:

 Jan Hrabovsky is a dedicated researcher specializing in optical and photonic materials, currently pursuing a Ph.D. at Charles University. His work focuses on the optical and magneto-optical response of dielectrics. With expertise in chalcogenide and tellurite glasses doped with rare earth ions, Jan contributes to advancements in fiber optics and laser technologies. He has collaborated internationally with institutions in Japan and France, resulting in publications in scientific journals and presentations at international conferences. Beyond research, he actively mentors aspiring researchers and engages in scientific committee roles and NGOs. Proud member of Rotary International and Mensa International.

Selected publications:

- J. Hrabovsky et al., Optical, magneto-optical properties and fiber-drawing ability of tellurite glasses in the TeO₂-ZnO-BaO ternary system, J.Non-Cryst. Solids, 624 (2024) 122712
- J. Hrabovsky et al., Laser-patterned boron-doped diamond electrodes with precise control of sp²/sp³ carbon lateral distribution, Apple. Surf. Sci., 639 (2023) 158268
- J. Hrabovsky et al., Correlated EPR and optical study of charge trapping phenomena in tellurite glasses. The role of barium oxide, J.Non-Cryst. Solids, 620 (2024) 122596
- J. Hrabovsky et al., Glass formation and properties of the TeO₂-ZnO-BaO tellurite optical glasses, J.Non-Cryst. Solids, 582 (2022) 121445
- J. Hrabovsky et al., Optical characterization of Y₃Al₅O₁₂ and Lu₃Al₅O₁₂ single crystals, Opt. Mater. Express 11 (2021) 1218-1223

- 2020-2022: Funded project: GAUK662220, Charles University Grant Agency, Principal Investigator
- 2019: Prize of the Czech Glass Society
- 2016: Prize of the Dean, Faculty of Chemical Technology, University of Pardubice
- 2013: Prize of Jaroslav Heyrovsky Endownment
- 2013: The office of the Czech Government award "Czech young head"



SPECIALIZATION: Ecosystem Ecology, Soil Biogeochemistry

FULBRIGHT PROJECT TITLE:

Contribution of Geogenic Organic Carbon to Modern Carbon Cycle and its Sensitivity to Climate Change

FULBRIGHT PROJECT DESCRIPTION:

Geogenic organic carbon is a significant but poorly quantified soil carbon pool. It is mineralized when exposed to an oxidative environment, but this flux is overlooked in global carbon models. I will compile evidence on the extent to which ecosystems are affected by the input of geogenic organic carbon and suggest how this information can be incorporated into Earth system models. I will also design an experiment to test whether the increased supply of fresh carbon expected under global change will increase this flux.

KEY WORDS:

Carbon cycle, global change, soil organic matter

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Faculty of Science, Institute for Environmental Studies, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Dartmouth College, Faculty of Arts and Sciences, Department of Biological Sciences, Hanover, New Hampshire

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES:

Caitlin E. Hicks Pries

GRANT PERIOD: 10/2024 - 05/2025

Link to the university profile >>

Kateřina Jandová

Assistant Professor

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2014, Charles University, Prague, Czech Republic
- M.S., 2007, Charles University, Prague, Czech Republic
- B.S., 2005, Palacky University in Olomouc, Czech Republic

Professional background:

- Assistant Professor, Charles University, Prague, Czech Republic, since 2015 onwards
- Postdoctoral Fellow, Nuclear Physics Institute of the Czech Academy of Sciences, Řež, Czech Republic, 2022-2023
- Research Associate, Charles University, Prague, Czech Republic, 2014
- Researcher, Institute of Botany of the Czech Academy of Sciences, Průhonice, Czech Republic, 2007-2013

Selected publications:

Frouz, J., Jandová, K. (2023). Soluble phenols in litter are reduced during passage through the soil macrofauna gut due to the formation of insoluble complexes with proteins: A case study with isopods and Diptera larvae. Soil Biology and Biochemistry, 187, 109191.

https://doi.org/10.1016/j.soilbio.2023.109191.

- Jílková, V., Jandová, K., Cajthaml, T., Kukla, J., Jansa, J. (2022) Differences in the flow of spruce-derived needle leachates and root exudates through a temperate coniferous forest mineral topsoil. Geoderma, 405, 115441. https://doi.org/10.1016/j.geoderma.2021.115441.
- Jílková, V., Jandová, K., Kukla, J., Cajthaml, T. (2021) Soil Organic Carbon Content Decreases in Both Surface and Subsoil Mineral Horizons by Simulated Future Increases in Labile Carbon Inputs in a Temperate Coniferous Forest. Ecosystems, 24, 2028–2041. https://doi.org/10.1007/s10021-021-00632-w.
- Jandová, K., Dostál, P., Cajthaml, T., Kameník, Z. (2015) Intraspecific variability in allelopathy of Heracleum mantegazzianum is linked to the metabolic profile of root exudates. Annals of Botany, 115, 821-831. https://doi.org/10.1093/aob/mcu265.
- Jandová, K., Klinerová, T., Müllerová, J., Pyšek, P., Pergl, J., Cajthaml, T., Dostál, P. (2014). Long-term impact of Heracleum mantegazzianum invasion on soil chemical and biological characteristics. Soil Biology and Biochemistry, 68, 270–278. https://doi.org/10.1016/j.soilbio.2013.10.014.

- 2024-2025: Fulbright-Masaryk Scholar, Dartmouth College, USA
- 2017: DAAD Fellowship for University Academics and Scientists, Max Planck Institute for Biogeochemistry, Germany



Comparative Politics, History of Central and Southeast Europe

FULBRIGHT PROJECT TITLE:

Post-Populist Political Legitimacy in Central Europe: Radicalization and polarization in Poland and the Czech Republic

FULBRIGHT PROJECT DESCRIPTION:

I am assessing the evolution of our contemporary democracy crisis in Central Europe in both top-to-bottom and bottom-up perspectives through the lenses of digital humanities and AI-based analytical tools.

KEY WORDS:

Populism, democracy, Poland, Czech Republic, digital humanities

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Institute of International Studies and Institute of Formal and Applied Linguistics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Rutgers University, Department of Political Science, New Brunswick, New Jersey

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Jan Kubik

GRANT PERIOD: 10/2024 - 03/2025

Link to the full CV >> Link to the university profile >>

Jiří Kocián

Assistant Professor/Post-Doc Research Associate at Charles University

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2021, Charles University, Prague, Czech Republic
- M.A., 2012, Charles University, Prague, Czech Republic
- B.A., 2009, Charles University, Prague, Czech Republic

Professional background:

 Jiří Kocián received his degrees in Area Studies from the Charles University, with focus on Central and Southeast Europe. He has dedicated his activity as a researcher and lecturer to studying issues of democracy in postsocialist Europe, construction of identity narratives, and their social and political reflection in combination with the history of the Holocaust and Post-Holocaust in the region. Jiří Kocián pushes for the implementation of digital humanities methods in social sciences and historical research.

Selected publications:

- Asavei M., & Kocián J. (2022). Include me out : theatre as sites of resistance to right-wing populism in Estonia, the Czech Republic and Hungary. Studies in Theatre and Performance, 42(4), 196-212.
- Mlynář J., Kocián J., & Hofmesiterová K. (2022). How "Tools" Produce "Data": Searching in a Large Digital Corpus of Audiovisual Holocaust Testimonies. In Jewish Studies in the Digital Age, edited by Gerben Zaagsma, Daniel Stökl Ben Ezra, Miriam Rürup, Michelle Margolis and Amalia S.
- Králová K., & Kocián J. (2020). German Collective Guilt in the Narratives of Southeastern European Holocaust Survivors. German-Balkan Entangled Histories in the Twentieth Century (pp. 114-135).
- Kubát M., Mejstřík M., & Kocián J. (eds.). (2016). Populismus v časech krize. Univerzita Karlova, nakladatelství Karolinum.
- Králová K., Kocian J., & Pikal K. (eds). (2016). Minderheiten im sozialistischen Jugoslawien : Brüderlichkeit und Eigenheit. Peter Lang Edition.

- 2022: Faculty of Social Sciences, CUNI: Best evaluated MA course at the Institute of International Studies for Transnational History of Contemporary Europe
- 2018: Faculty of Mathematics and Physics, CUNI: Dean's award for the representation and promotion of the Faculty
- 2015: DAAD Research Fellow at the IOS Regensburg
- 2012: Faculty of Social Sciences, CUNI: Dean's Award for excellent MA Thesis
- 2012: Faculty of Social Sciences, CUNI: MA Suma Cum Laude Diploma



Urban Resilience, Climate Adaptation

FULBRIGHT PROJECT TITLE:

Advancing Blue-Green Infrastructure: Strategies and implementation in urban environments

FULBRIGHT PROJECT DESCRIPTION:

In the context of contemporary urban development, cities face an urgent imperative to adapt to the ever-increasing impacts of climate change. A crucial such tool is the integration of blue-green infrastructure in urban planning. Czech municipalities are lacking comprehensive knowledge and experience in this area. Since 2018, I have conducted doctoral research in this field. Additionally, from 2013, I have led a nonprofit project focusing on educating city representatives in rainwater management and blue-green infrastructure in public spaces. Seeking to broaden my expertise, I aim to conduct research in the United States, thus contributing to the knowledge transfer.

KEY WORDS:

Urban development, urban resilience, bluegreen infrastructure, green infrastructure, strategic planning, climate adaptation

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Faculty of Architecture, Urban Planning and Design, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Portland, Shiley School of Engineering, Portland, Oregon

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Cara J. Poor

GRANT PERIOD: 11/2024 - 02/2025

Link to the full CV >> Link to the university profile >>

Michaela Koucká

Ph.D. student; Watter Maters Project Program Director

Fulbright-Masaryk Program

Academic training:

- M.A., 2011, Charles University, Faculty of Humanities, Social and Cultural Ecology, Prague Czech Republic
- B.A., 2006, ESMA Czech Management Institute, Prague/Barcelona

Professional background:

 Michaela Koucká has fifteen years of experience in sustainable development and planning at the local level, ten years of experience with the implementation of bluegreen infrastructure in an urban environment, more than five publications in the sustainable development field - indicators, stormwater management, methodologies, strategic planning, etc. Michaela Koucká works mostly in contact with representatives of public administration, and city mayors.

Selected publications:

- Development of Sectoral and Regional Climate Change Adaptation Plans in Uzbekistan: National Adaptation Plan for Buildings sector, UNDP, Rethink Architecture, 2023, co-author
- So That the City Does Not Burn: Planning at the City Level, Nadace Partnerstvi, 2021, co-author
- Adaptation Strategy of the Moravian-Silesian Region to the Impacts of Climate Change, Ekotoxa, 2020, co-author
- Update Comprehensive study of Impacts, Vulnerabilities and Sources of Risks Related to Climate Change in the Czech Republic from 2015, Czech Hydrometeorological Institute, 2019, co-author
- Methodology of Intelligent Sustainable Cities Assessment in cooperation with the Ministry of Regional Development of the Czech Republic, UCEEB CTU, 2019, co-author

- 2024: AKTION Scholar, Vienna, Austria
- 2019: BLOXHUB Summer School on Urban Resilience, Copenhagen, Denmark



SPECIALIZATION: Educational Psychology

FULBRIGHT PROJECT TITLE:

Trust in Artificial Intelligence: An empirical study of trust dynamics in Al interactions

FULBRIGHT PROJECT DESCRIPTION:

The project will focus on human trust in artificial intelligence. I will examine how anthropomorphic tendencies affect people's emotional trust in AI agents. In addition to academic research, the project will focus on developing an educational program for students focused on critical thinking in relation to AI.

KEY WORDS:

Artificial intelligence, trust, anthropomorphism

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

University of Ostrava, Faculty of Arts, Department of Psychology, Ostrava

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Connecticut, Department of Biomedical Engineering, Storrs, Connecticut

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Hugo F. Posada-Quintero

GRANT PERIOD: 12/2024 - 05/2025

Link to the full CV >> Link to the university profile >>

Josef Kundrát

Assistant Professor of Psychology

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2017, Palacky University, Olomouc, Czech Republic
- M.A., 2013, Palacky University, Olomouc, Czech Republic

Professional background:

 Josef Kundrát's professional focus is in the field of educational psychology, but with the recent rapid development of technology, his research interest has turned more towards the study of trust in algorithms and artificial intelligence. In parallel with my academic career, He is involved in the development and implementation of non-digital educational games (edularps) for primary and secondary schools with a focus on all-round competence development and the creation of positive attitudes towards STEM sciences.

Selected publications:

- Kundrát, J., Rečka, K., Litschmannová, M., Vrtková, A., Baumgartner, F., Benešová, T., Paulík, K., Skanderová, L., Fabián, T., Beranová, H., & Ullmannová, D. (2023). Metaphors of distance, size and temperature in sociometry of small social groups: A generalizability theory approach. Education and Information Technologies. https://doi.org/10.1007/s10639-023-11870-x
- Kundrát, J., Rečka, K., Paulík, K., Baumgartner, F., Malůš, M., Skanderová, L., Fabián, T., Platoš, J., Litschmannová, M., Vrtková, A., & Benešová, T. (2023). Assessing Attitudes Indirectly Through Conceptual Metaphors of Size and Distance in an Interactive Software. Metaphor and Symbol, 38(4), 329–345. https://doi.org/10.1080/10926488.2023.2215847
- Kundrát, J., & Rojková, Z. (2021). Psychological distance as a means of evaluation. New Ideas in Psychology, 63, 100900. https://doi.org/10.1016/j.newideapsych.2021.100900
- Oľhová, S., Lášticová, B., Kundrát, J., & Kanovský, M. (2022). Using fiction to improve intergroup attitudes: Testing indirect contact interventions in a school context. Social Psychology of Education, 26(1), 81–105. https://doi.org/10.1007/s11218-022-09708-4
- Kundrát, J., Rečka, K., Paulík, K., Baumgartner, F., Malůš, M., Beranová, H., Skanderová, L., Fabián, T., Litschmannová, M., Vrtková, A. a Benešová, T. (2022) Interactive Visual Metaphors: Expert Diagnostic Tool Methodology. University of Ostrava

Fellowship, honors, etc.:

• 2012-2013: Moravian College, Bethlehem, Pennsylvania, USA, Merrill scholarship



Quantitative Histology, Higher Education Pedagogy

FULBRIGHT PROJECT TITLE:

Competency-Based Learning: Guiding Students Toward Mastery

FULBRIGHT PROJECT DESCRIPTION:

Evidence-based methods, such as Competency-Based Education (CBE), have become a crucial part of teaching and learning at the universities. The project aims to implement elements of CBE in STEM course and to evaluate its effect on the students' ability to master the proposed learning objectives in large class setting.

KEY WORDS:

Competency-based education, STEM education, active learning

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Faculty of Medicine in Pilsen, Department of Histology and Embryology, Pilsen

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Maryland, Baltimore County, Department of Biological Sciences, Baltimore, Maryland

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Sarah Leupen

GRANT PERIOD:

08/2024 - 01/2025

Anna Malečková

Senior Lecturer - Department of Histology and Embryology

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2022, Charles University, Prague, Czech Republic
- M.D., 2017, Charles University, Prague, Czech Republic

Professional background:

- Methodology manager, Teaching and Learning Center, Faculty of Medicine in Pilsen, Charles University, since 2022
- Junior researcher, Biomedical Center, Faculty of Medicine in Pilsen, Charles University, since 2017
- Research assistant, NTIS New Technologies for the Information Society, Faculty of Applied sciences, University of West Bohemia, 2018-2022
- Assistant/Senior Lecturer, Department of Histology and Embryology, Faculty of Medicine in Pilsen, Charles University, Czech Republic, since 2015

Selected publications:

- Malečková A, Mik P, Liška V, Pálek R, Rosendorf J, Witter K, Grajciarová M, Tonar Z. Periphery of porcine hepatic lobes has the smallest length density of hepatic sinusoids and bile canaliculi: A stereological histological study with implications for liver biopsies. Ann Anat. 2023 Oct;250:152157. doi: 10.1016/j.aanat.2023.152157. Epub 2023 Sep 4. PMID: 37666463.
- Kolinko Y, Malečková A, Kochová P, Grajciarová M, Blassová T, Kural T, Trailin A, Červenková L, Havránková J, Vištejnová L, Tonarová P, Moulisová V, Jiřík M, Zavaďáková A, Tichánek F, Liška V, Králíčková M, Witter K, Tonar Z. Using virtual microscopy for the development of sampling strategies in quantitative histology and design-based stereology. Anat Histol Embryol. 2022 Jan;51(1):3-22. doi: 10.1111/ahe.12765.
- Filová E, Tonar Z, Lukášová V, Buzgo M, Litvinec A, Rampichová M, Beznoska J, Plencner M, Staffa A, Daňková J, Soural M, Chvojka J, Malečková A, Králíčková M, Amler E. Hydrogel Containing Anti-CD44-Labeled Microparticles, Guide Bone Tissue Formation in Osteochondral Defects in Rabbits. Nanomaterials (Basel). 2020 Jul 31;10(8):1504. doi: 10.3390/nano10081504.
- Eberlová L, Malečková A, Mik P, Tonar Z, Jiřík M, Mírka H, Pálek R, Leupen S, Liška V. Porcine Liver Anatomy Applied to Biomedicine. J Surg Res. 2020 Jun;250:70-79. doi: 10.1016/j.jss.2019.12.038.
- Jiřík M, Bartoš M, Tomášek P, Malečková A, Kural T, Horáková J, Lukáš D, Suchý T, Kochová P, Hubálek Kalbáčová M, Králíčková M, Tonar Z. Generating standardized image data for testing and calibrating quantification of volumes, surfaces, lengths, and object counts in fibrous and porous materials using X-ray microtomography. Microsc Res Tech. 2018 Jun;81(6):551-568. doi: 10.1002/jemt.23011.

- 2023: Arnošt z Pardubic prize for an outstanding achievement in pedagogical work -Innovations in teaching of embryology in medical faculties
- 2021: Jaroslav Slípka's prize for contribution to development of the Faculty of Medicine in Pilsen, Charles University Coordination of student volunteers for hospital care in the Pilsen region, Czech Republic during the COVID-19 pandemic
- 2016: Josef Hlávka's prize for the best graduates of Prague universities



Nano/Micro-Scale Material Characterization Using Advanced Experimental Techniques, Numerical Modeling with Primary Interest in Concrete.

FULBRIGHT PROJECT TITLE:

Durability Assessment of Nanoparticle-Modified Cementitious Composites Using a Non-Destructive Electrical Method Correlated with Mechanical Tests

FULBRIGHT PROJECT DESCRIPTION:

The project aims to enhance the durability of concrete structures using the non-destructive electrical method Electrochemical Impedance Spectroscopy (EIS). The focus is on studying the electrical properties of concrete materials modified with various types of nanoparticles, providing valuable insights into factors such as corrosion, durability, porosity, and overall material health.

KEY WORDS:

Concrete, electrochemical impedance spectroscopy, nanoparticles, porosity, durability

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Faculty of Civil Engineering, Department of mechanics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

The University of Texas at Arlington, Center for Advanced Construction Materials, Arlington, Texas

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Maria S. Konsta-Gdoutos

GRANT PERIOD: 10/2024 - 03/2025

Jiří Němeček

Post-doctoral Researcher at Czech Technical University in Prague

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2021, Czech Technical University in Prague, Czech Republic
- M.S., 2017, Czech Technical University in Prague, Czech Republic
- B.S., 2015, Czech Technical University in Prague, Czech Republic

Professional background:

- Post-doctoral researcher at Czech Technical University in Prague, Faculty of Civil Engineering, Department of Mechanics, since 2021
- Lab manager of the CE-Nano lab and CE-SEM lab, Czech Technical University in Prague, Faculty of Civil Engineering, since 2017
- Researcher at the Czech Technical University in Prague, Faculty of Civil Engineering, Department of Mechanics, 2017–2021
- Project office Ing. Jiří Němeček: static analysis, technical documentation, and drawing preparation, 2014–2016
- Research assistant at Czech Technical University in Prague, Faculty of Civil Engineering, Department of Concrete and Masonry Structures, 2014–2016

Selected publications:

- Němeček, J.; Lukeš, J.; Němeček, J. High-speed mechanical mapping of blended cement pastes and its comparison with standard modes of nanoindentation. Materials Today Communications 23 (2020) 100806.
- Němeček, J.; Trávníček, P.; Keppert, M.; Halodová, P.; Rosnecký, V.; Němeček, J. Nanomechanical analysis of Gamma-irradiated cement paste exposed to different humidities. Construction and Building Materials 393 (2023) 131969.
- Němeček, J.; Maňák, J.; Němeček, J.; Krejčí, T. Effect of vacuum and Focused Ion Beam generated heat on fracture properties of hydrated cement pastes. Cement and Concrete Composites 100 (2019) 139-149.
- Khmurovska, Y.; Štemberk, P.; Sikorin, S.; Němeček, J.; Jóźwiak-Niedźwiedzka, D.; Doleželová, M.; Kaladkevich, Y.; Pavalanski, E.; Fatseyeu, V. Effects of Gamma-Ray Irradiation on Hardened Cement Mortar. International Journal of Concrete Structures and Materials 15 (2021) 1-14.
- Martynek, D.; Němeček, J.; Ridvan, L.; Němeček, J.; Šoóš, M. Impact of crystallization conditions and filtration cake washing on the clustering of metformin hydrochloride crystals. Powder Technology 405 (2022) 117522.

- 2024-2025: Fulbright The University of Texas at Arlington, USA
- 2023-2024: Member of Association of Czech and Slovak Corrosion Engineers (AKI)



SPECIALIZATION: Transportation and Urban Planning

FULBRIGHT PROJECT TITLE:

Transferability of Transportation Planning and Innovative Measures from New York to Prague

FULBRIGHT PROJECT DESCRIPTION:

The main objective of the project is to gain a comprehensive understanding of the transportation system in New York and to engage in firsthand experiences and discussions with experts and stakeholders. Subsequently, there will be an assessment of the potential applicability of these insights to the transportation system in Prague and incorporation of them into lectures at the Faculty of Transportation Sciences at CTU.

KEY WORDS:

Transportation planning, congestion pricing, RPA

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

The Prague Institute of Planning and Development, Department of Infrastructure, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Regional Plan Association

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Rachel Weinberger

GRANT PERIOD: 09/2024 - 11/2024

Link to the full CV >> Link to the university profile >>

Václav Novotný

Head of the Office of Transport Insfrastructure

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2017, Czech Technical University in Prague, Faculty of Transportation Sciences, Czech Republic
- M.Eng., 2011, Czech Technical University in Prague, Faculty of Transportation Sciences, Czech Republic
- B.A., 2009, Czech Technical University in Prague, Faculty of Transportation Sciences, Czech Republic

Professional background:

 Václav graduated at the Faculty of Transportation Sciences of the Czech Technical University in Prague. From 2011 to 2014, he worked as a transport infrastructure planner in Atelier T-plan. Since 2014, he has been worked as a sustainable mobility planner at the Institute of Planning and Development of the City of Prague and since 2020 he has been a head of the Office of Transport Infrastructure. At Transport Infrastructure Office at IPR he specializes in sustainable mobility planning. He is an external teacher at the Faculty of Transportation Sciences also. Václav is an authorized engineer for transport infrastructure by ČKAIT and Road Safety Auditor.

Selected publications:

- Dopravní inženýrství (Transport engineering), chapters 3.1-3.9 and 3.11-3.12, Česká silniční společnost, Praha, 2023, ISBN 978-80-02-03028-7-
- Principles of setting up charging infrastructure in Prague; IPR Praha, 2022.
- Territorial Analytical Documents Transport Infrastructure; IPR Praha, 2021.
- Sustainable mobility Plan for Prague and its Suburbs; City of Prague, 2019.
- Transport Strategy for city of Hodonín (CZE); Atelier T-plan, 2014.

- 2015-present: Authorized engineer for transport infrastructure ČKAIT
- 2011: Prof. Ing. Dr. Jaroslava Vlčka, DrSc Prize 2nd-3rd place for Master thesis Study tram route extension from Divoká Šárka to Ruzyně area
- 2009: Dean's praise for Bachelor thesis Study of Freight Railway Line Utilization Praha Vršovice - Praha Běchovice for Passenger Transport



Accessibility within the Film Festival Industry, Accessible Communication and Cultural PR and Marketing

FULBRIGHT PROJECT TITLE:

Enhancing Film Festival Accessibility: Exchange of experience and forming future collaborations

FULBRIGHT PROJECT DESCRIPTION:

In the ever-evolving landscape of global cultural exchange, the accessibility of film festivals holds significant importance. This proposed research project addresses this aspect by examining and improving the accessibility practices within the renowned One World Film Festival. One of the main goals of this project is to create a comprehensive handbook of accessibility best practices.

KEY WORDS:

Accessibility, film festivals

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

International Human Rights Film Festival One World - People in Need, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Full Spectrum Features, Department of Accessibility & Programs, Chicago Illinois

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Cassidy Dimon

GRANT PERIOD: 04/2025 - 06/2025

Link to the full CV >>

Nikola Páleníčková

Accessible Communication Coordinator

Fulbright-Masaryk Program

Academic training:

• M.A., 2023, Charles University, Prague, Czech Republic

Professional background:

 Nikola is a dynamic PR and marketing professional with a rich background in major film festivals throughout the Czech Republic. Her expertise is in the festival industry, non-profit organizations, and accessibility. Serving as the Head of PR and Communications for the International Human Rights Film Festival One World, she spearheaded innovative campaigns to communicate the festival to a wide-ranging audience. Currently, she works as an accessible communication coordinator within the festival. With her team, she organizes conferences and workshops on accessibility for NGOs and cultural institutions. As a PR and marketing consultant, she works with various institutions within the Czech cultural scene.

Fellowship, honors, etc.:

• 2023: Aspen Young Leaders Program



SPECIALIZATION: Plasma, High-Temperature Physics

FULBRIGHT PROJECT TITLE:

The Impact of the Outer Plasma Shell on Gas-Puff Implosion at a Mid-Scale Facility

FULBRIGHT PROJECT DESCRIPTION:

This project belongs to the experimental research of electric discharges that generate hot, dense fusion plasma. The main objective is to assess the scalability and portability of prior successful experiments with pre-ionization from largescale facility to mid-scale facility MAIZE (electric current up to 1 MA, 100 ns rise time) at the University of Michigan.

KEY WORDS:

Hot dense plasma, fusion, fast neutrons, fast ions, z-pinch

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Department of Physics, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Michigan, Department of Nuclear Engineering & Radiological Sciences, Ann Arbor, Michigan

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Ryan David McBride

GRANT PERIOD: 09/2024 - 05/2025

Karel Řezáč

<mark>Assistant Professor</mark> Fulbright-Masaryk Program

Academic training:

- Ph.D., 2011, Czech Technical University in Prague, Czech Republic
- M.A., 2004, Czech Technical University in Prague, Czech Republic

Professional background:

 Karel Řezáč is a member of the scientific group 'High-current discharges' on FEE CTU in Prague, specializing in (i) X-ray, electron, ion, and neutron diagnostics of hot-dense plasma and other experimental skills gained at the laser and Z-pinch facilities, (ii) numerical simulations (Monte Carlo, optimization techniques), and (iii) the design of diagnostic instruments. Participants in many experimental campaigns in foreign countries. Karel Řezáč has taught Physics 1, Physics 2, and lecture in Plasma diagnostics.

Selected publications:

- K. Rezac, D. Klir, P. Kubes and J. Kravarik: Improvement of time-of-flight methods for reconstruction of neutron energy spectra from D(d,n)3He fusion reactions. Plasma Phys. Control. Fusion 54, 105011, 2012.
- D. Klir, P. Kubes, K. Rezac, J. Cikhardt, et al.: Efficient Neutron Production from a Novel Configuration of Deuterium Gas-Puff Z-Pinch, Phys. Rev. Lett. 112, 095001, 2014.
- D. Klir, A.V. Shishlov, V.A. Kokshenev, S.L. Jackson, K. Rezac, et al.: Production of energetic protons, deuterons, and neutrons up to 60 MeV via disruption of a current-carrying plasma column at 3 MA, New J. Phys. 22, 103036, 2020.
- D. Klir, A.V. Shishlov, V.A. Kokshenev, R.K. Cherdizov, et al.: K-shell radiation and neutron emission from z-pinch plasmas generated by hybrid gas-puff implosions onto on-axis wires, Phys. Plasmas 28, 062708, 2021.
- V. Munzar, D. Klir, J. Cikhardt, J. Kravarik, P. Kubes, J. Malir, J. Novotny, K. Rezac, et al.: Mapping of azimuthal B-fields in Z-pinch plasmas using Z-pinch-driven ion deflectometry, Physic of Plasmas 28 (6), 062702, 2021.

- 2012: Individual award: Czech Technical University in Prague Rector's Award for Excellent Doctoral Thesis, 1st degree
- 2014: Team award: Czech Technical University in Prague Rector's Award for Excellence in Research, 2nd degree



SPECIALIZATION: Sustainable Agriculture, Plant Production

FULBRIGHT PROJECT TITLE:

Harnessing Rye's Allelopathy for Sustainable Crop Protection and Weed Management

FULBRIGHT PROJECT DESCRIPTION:

This project explores the allelopathic effects of rye for sustainable agriculture, focusing on its potential as a natural herbicide to suppress weeds. By leveraging rye's properties and developing new varieties, the research seeks to reduce reliance on synthetic herbicides, thus contributing to sustainable farming practices

KEY WORDS:

Rye, plant allelopathy, pesticide reduction, cover crops

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech University of Life Sciences Prague, Department of Agroecology and Crop Production, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

North Carolina State University, Department of Weed Biology and Ecology, Raleigh, North Carolina

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Ramon Leon

GRANT PERIOD: 10/2024 - 02/2025

Link to the full CV >> Link to the university profile >>

Matěj Satranský

Assistant Professor

Fulbright-Masaryk Program

Academic training:

- Ph.D., 2023, Czech University of Life Sciences Prague, Czech Republic
- M.A., 2018, Czech Czech University of Life Sciences Prague, Czech Republic

Professional background:

 Matěj Satranský holds a Ph.D. in specialized crop production from the Czech University of Life Sciences in Prague, where he currently serves as an Assistant Professor. His expertise is in agronomy and sustainable agriculture. He conducts field and laboratory experiments centered on crop protection and is dedicated to teaching and mentoring students. His work focuses on reducing pesticide usage and encouraging organic farming methods.

Selected publications:

- Satranský M, Capouchová I, Burešová B, Procházka P. 2022. Effects of various poppy seed pre-sowing treatments on the dynamics of field emergence, structure of yield parameters, oil content, and yield of seed. Plant, Soil and Environment 68(11):533-541.
- Satranský M, Fraňková A, Kuchtová P, Pazderů K, Capouchová I. 2021. Oil content and fatty acid profile of selected poppy (Papaver somniferum L.) landraces and modern cultivars. Plant, Soil and Environment 67(10):579-587.
- Dvořák P, Capouchová I, Král M, Konvalina P, Janovská D, Satranský M. 2022. Grain yield and quality of wheat in wheat-legumes intercropping under organic and conventional growing systems. Plant, Soil and Environment 68(12):553-559.
- Capouchová, I., Burešová, B., Paznocht, L., Eliášová, M., Pazderů, K., Konvalina, P., Satranský M, Dvořáček V. 2020. Antioxidant activity and content of selected antioxidant compounds in grain of different oat cultivars. Plant, Soil and Environment 66(7):327-333.

Fellowship, honors, etc.:

• 2018: Prize of the Minister of Agriculture for "an excellent diploma thesis with a contribution to work in the field of agriculture, forestry, water management and landscape and water resources conservation."



Computational Social Choice, Algorithmic Game Theory, Social Networks Analysis

FULBRIGHT PROJECT TITLE:

Fairness, Equality, and Diversity in Algorithmic Decision Making: A perspective of computational complexity

FULBRIGHT PROJECT DESCRIPTION:

In an increasingly interconnected world, algorithmic decision-making systems have become integral to our daily lives. My project aims to explore the intricate interplay between fairness, equality, and diversity and the computational challenges associated with computational problems at the heart of nowadays decision-making systems.

KEY WORDS:

Algorithmic decision making, mechanism design, social choice, computational complexity

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Faculty of Information Technology, Department of Theoretical Computer Science, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Pennsylvania State University, College of Information Sciences and Technology, University Park Pennsylvania

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Hadi Hosseini

GRANT PERIOD: 08/2024 - 02/2025

Link to the full CV >>

Šimon Schierreich

Ph.D. Student

Fulbright-Masaryk Program

Academic training:

- M.S., 2020, Czech Technical University in Prague, Czech Republic
- B.S., 2018, Czech Technical University in Prague, Czech Republic

Professional background:

- Researcher, Czech Technical University in Prague, since 2020
- Teaching Assistant, Czech Technical University in Prague, since 2019
- Teacher, Gymnasium Jana Keplera, 2019-2024

Selected publications:

- Deligkas, A., Eiben, E., Korchemna, V., & Schierreich, Š. (2024). The Complexity of Fair Division of Indivisible Items with Externalities. In: Proceedings of the 38th AAAI Conference on Artificial Intelligence, AAAI'24, 38(9), 9653-9661. https://doi.org/10.1609/aaai.v38i9.28822.
- Ganian, R., Hamm, T., Knop, D., Schierrreich, Š., & Suchý, O. (2023). Hedonic Diversity Games: A Complexity Picture with More than Two Colors. Artificial Intelligence, 325, 104017. https://doi.org/10.1016/j.artint.2023.104017.
- Blažej, V., Ganian, R., Knop, D., Pokorný, J., Schierreich, Š., & Simonov, K. (2023). The Parameterized Complexity of Network Microaggregation. In: Proceedings of the 37th AAAI Conference on Artificial Intelligence, AAAI'23, 37(5), 6262-6270. https://doi.org/10.1609/aaai.v37i5.25771.
- Knop, D., & Schierreich, Š. (2023). Host Community Respecting Refugee Housing. In: Proceedings of the 22nd International Conference on Autonomous Agents and Multiagent Systems, AAMAS'23, 966–975. https://dl.acm.org/doi/10.5555/3545946.3598736.
- Blažej, V., Choudhary, P., Knop, D., Schierreich, Š., Suchý, O., & Valla, T. (2022). On Polynomial Kernels for Traveling Salesperson Problem and Its Generalizations. In: Proceedings of the 30th Annual European Symposium on Algorithms, ESA'22. LIPIcs vol. 244, 22:1-22:16. https://doi.org/10.4230/LIPIcs.ESA.2022.22.

- 2023: CEEPUS Mobility Grant Freemover Scholarship to AGH UST Kraków
- 2022: Stanislav Hanzl Award Outstanding Student of the Czech Technical University in Prague



SPECIALIZATION: Additive Manufacturing, Laser Shock Peening

FULBRIGHT PROJECT TITLE:

Enhancing the Fatigue Life of L-PBF Printed Parts by Laser Shock Peening

FULBRIGHT PROJECT DESCRIPTION:

Enhancing the surface integrity of the material in reflect to increased fatigue life with the overall goal of producing better functioning implants and technical applications along the way.

KEY WORDS:

Additive manufacturing, laser processing, 3D printing, L-PBF, laser peening

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Technical University in Prague, Faculty of Mechanical Engineering, Department of Machining, Process Planning and Metrology, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Memphis, Faculty of Mechanical Engineering, Metal additive manufacturing laboratory, Memphis, Tennessee

HOST/CONTACT PERSON AT THE

DEPARTMENT IN THE UNITED STATES: Reza Molaei

GRANT PERIOD: 09/2024 - 04/2024

Link to the full CV >> Link to the university profile >>

Ondřej Stránský

Laser Shock Peening Specialist

Fulbright-Masaryk Program

Academic training:

• M.A., 2021, Czech Technical University in Prague, Czech Republic

Professional background:

• Ph.D. student at CTU, working with metal additive manufacturing, Laser shock peening specialist at HiLASE center

Selected publications:

- Effects of Sacrificial Coating Material in Laser Shock Peening of L-PBF Printed AlSi10Mg
- Porosity and microstructure of L-PBF printed AlSi10Mg thin tubes in laser shock peening
- Machine learning approach towards laser powder bed fusion manufactured AlSi10Mg thin tubes in laser shock peening

Fellowship, honors, etc.:

• 2024-2025: Fulbright-Masaryk scholarship



SPECIALIZATION: Microbiology

FULBRIGHT PROJECT TITLE:

Using Genomics to Understand How Fungal Symbionts Evolve and Adapt to Their Hosts

FULBRIGHT PROJECT DESCRIPTION:

Fungi are a key element in the formation of ecosystems, as they connect individual organisms to each other and to their environment. My project will study fungal adaptations underlying rare emergence of active fungal farming by animals as these fungi could be a promising source of nutrients and bioactive compounds.

KEY WORDS:

Fungi, symbiosis, evolution, genomics

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Czech Academy of Sciences, Institute of Microbiology, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Indiana University, Department of Biology, Bloomington, Indianapolis

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES:

Ryan Bracewell

GRANT PERIOD: 08/2024 - 06/2025

Tereza Veselská

Postdoctoral Researcher Fulbright-Masaryk Program

Academic training:

- Ph.D., 2022, Charles University, Prague, Czech Republic
- M.S., 2013, Charles University, Prague, Czech Republic
- B.S., 2010, Charles University, Prague, Czech Republic

Professional background:

• Postdoctoral Researcher, Institute of Microbiology of the Czech Academy of Sciences, since 2022

Selected publications:

- Veselská, T., Švec, K., Kostovčík, M., Peral-Aranega, E., García-Fraile, P., Křížková, B., ... & Kolarik, M. (2023). Proportions of taxa belonging to the gut core microbiome change through. FEMS Microbiology, DOI: 10.1093/femsec/fiad072.
- Cheng, T., Veselská, T., Křížková, B., Švec, K., Havlíček, V., Stadler, M., Kolařík, M. (2023). Insight into the genomes of dominant yeasts symbionts of European spruce bark beetle, Ips typographus. Frontiers in Microbiology 14: 930.
- Veselská T., Skelton, J., Kostovčík M., Hulcr J., Baldrian P., Chudíčková M., Cajthaml T., Vojtová T., Garcia-Fraile P., Kolařík M. (2019) Adaptive traits of bark and ambrosia beetle-associated fungi. Fungal Ecology 41:165-176.
- Veselská T., Kolařík M. (2015) Application of flow cytometry for exploring the evolution of Geosmithia fungi living in association with bark beetles: the role of conidial DNA content. Fungal Ecology 13: 83-92.
- Veselská T., Svoboda J., Růžičková Ž., Kolařík M. (2014) Application of flow cytometry for genome size determination in Geosmithia fungi: A comparison of methods. Cytometry Part A 85: 854-61.

- 2024: one month internship in Kenya
- 2023: two months internship in Thailand
- 2022: The best PhD thesis defended at the Institute of Microbiology of the CAS for the year 2022
- 2021: Josef Hlávka award for the best students and absolvents for the year 2021 (the best student of the Faculty of Sciences, Charles University)



SPECIALIZATION: Music Education

FULBRIGHT PROJECT TITLE:

Falsetto/M2 Excercises as a Main Tool for Structuring Male Singing Voice: Legacy of Anthony Frisell in American Education

FULBRIGHT PROJECT DESCRIPTION:

The training of the male singing voice usually starts from the readily available chest voice. This projects examines an alternative approach that builds the full voice from falsetto phonation and which was extensively described in books by American singer and pedagogue Anthony Frisell.

KEY WORDS:

Falsetto, male singing voice, M2 phonation, Anthony Frisell

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Faculty of Education, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

University of Texas, School of Music, San Antonio, Texas

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: John Nix

GRANT PERIOD:

09/2024 - 12/2024

Lukáš Filippi

Ph.D. Student

Visiting Student Program

Academic training:

- M.A., 2021, Charles University in Prague, Czech Republic
- DiS, 2021, Prague Conservatory, Czech Republic
- B.A., 2017, Charles University in Prague, Czech Republic

Professional background:

• Lukas has studied classical singing at Prague Conservatory, earned BA in Musicology at Charles University and continued with MA in Music Education where he continues in his PhD. He is interested in singing pedagogy, specifically with the role of falsetto in building the male singing voice.

Selected publications:

- Filippi, L. Školení hlasu prostřednictvím falzetu. In Aura Musica, 2023/14, UJEP, s. 26 33.
- Filippi, L. Limity mluvení o zpěvu. In Juvenilia Paedagogica 2023, s. 28 32.

Fellowship, honors, etc.:

• 2024: Fulbright Scholarship



SPECIALIZATION: Acoustics

FULBRIGHT PROJECT TITLE:

Research on Prodromal Diagnosis and Monitoring of Lewy Body Dementia Utilizing Digital Speech and Voice Biomarkers

FULBRIGHT PROJECT DESCRIPTION:

This multidisciplinary project addresses knowledge gaps in the diagnosis and monitoring of Lewy body dementia and proposes innovative approaches using acoustic speech analysis and machine learning for early supportive diagnosis and prediction of disease progression. Through this, it aims to present a new, fast, cheap, and easy-to-administer alternative to existing methods.

KEY WORDS:

Acoustic analysis, dementia with Lewy bodies, digital speech and voice biomarkers, machine learning

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Brno University of Technology, Faculty of Electrical Engineering and Communication, Department of Telecommunications, Brno

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Johns Hopkins University, Department of Electrical and Computer Engineering, Center for Language and Speech Processing, Baltimore, Maryland

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES:

Laureano Moro Velazquez

GRANT PERIOD: 10/2024 - 02/2025

Link to the full CV >>

Kryštof Novotný

Ph.D. Student

Visiting Student Program

Academic training:

• M.S., 2023, Brno University of Technology, Brno, Czech Republic

Professional background:

 Kryštof Novotný is a member of the Brain Diseases Analysis Laboratory (BDALab) at Brno University of Technology. As part of his PhD studies, He deals with the acoustic analysis of speech in patients with neurodegenerative disorders (Parkinson's disease, Lewy body dementia), with a focus on researching new digital speech and voice biomarkers. Using these biomarkers in combination with AI technologies, Kryštof Novotný aims to facilitate the diagnosis, assessment, and monitoring of such diseases.

Selected publications:

• K. Novotný and J. Mekyska, "Assessing Movement of Articulatory Organs in Patients with Parkinson's Disease", in Proceedings II of the Conference Student EEICT, 2022, pp. 243-246.

- 2024: 2nd place in Audio, Speech and Language Processing Category (Student Conference EEICT, Paper: "Long-Term Effect of Repetitive Transcranial Magnetic Stimulation on Parkinson's Disease Patients with Different Severity of Hypokinetic Dysarthria")
- 2021-2023: High Academic Distinction (Master's Ing.)
- Dean's Award (Master's thesis: "Analysis of Speech Disorders in Patients with a High Risk of Developing Lewy Body Diseases")
- 2018-2021: High Academic Distinction (Baccalaureate Bc.)
- Dean's Award (Bachelor's thesis: "Assessing Movement of Articulatory Organs Based on Acoustic Analysis of Speech")



International Relations, Contemporary Middle East, Media Studies, Protests

FULBRIGHT PROJECT TITLE:

(In)visible Arab Spring 2.0 in Global Media? The new wave of contentious politics in the Middle East and North Africa

FULBRIGHT PROJECT DESCRIPTION:

My data driven research focuses on global media visibility of protest events in the Middle East and North Africa (MENA) after the Arab Spring, adopting an interdisciplinary approach that draws on theoretical insights from media studies, sociology and IR.

KEY WORDS:

MENA, protest events, media visibility, news flows between states

HOME INSTITUTION AND DEPARTMENT IN THE CZECH REPUBLIC:

Charles University, Department of International Relations, Prague

HOST INSTITUTION AND DEPARTMENT IN THE UNITED STATES:

Princeton University, Department of Political Science, Princeton, New Jersey

HOST/CONTACT PERSON AT THE DEPARTMENT IN THE UNITED STATES: Mark R. Beissinger

GRANT PERIOD: 09/2024 - 01/2025

Link to the full CV >> Link to the university profile >>

Tereza Plíštilová

Ph.D. candidate

Visiting Student Program

Academic training:

- Ph.D. candidate, 2025, Faculty of Social Sciences, Charles University, Prague, Czech Republic
- M.S., (graduated summa cum laude), 2020, Faculty of Social Sciences, Charles University, Prague, Czech Republic
- B.A., 2018, Faculty of Social Sciences, Charles University, Prague, Czech Republic
- Semesters abroad: American University in Cairo (Egypt), Tel Aviv University (Israel), Leiden University (Netherlands)

Professional background:

- Junior Researcher, Peace Research Center Prague, 2022
- Junior Researcher, The Herzl Center for Israel Studies, 2022
- Lecturer, Faculty of Social Sciences, Charles University, 2022
- Ipsos, Czech Republic: Political and Public Research, 2018 2021

Selected publications:

- "Adopted or Contested? Examining Israel's Strategic Narratives in German Media" (under review, co-authored)
- "Elite-Public Gaps in Attitudes Towards Israel and The Israeli-Palestinian Conflict: New Evidence from a Survey of Czech Parliamentarians and Citizens" (under review, co-authored)

- 2024-2025: Fulbright visiting student researcher
- 2022-2024: Grant Agency of Charles University, (support for dissertation research)
- 2022: Full scholarship from the World Union of Jewish Studies (Summer School of Modern Hebrew, Tel Aviv University)