SCIENCE:
POLISH PERSPECTIVES

29-30 October 2022 | Oxford

Welcome… and welcome back!

We are thrilled to see the crowds gathering for this year's Science: Polish Perspectives (SPP) conference. This is the first in-person conference after a long, pandemic break, and we could not be happier to welcome you back to Oxford. We hope you are excited for the next day and a half filled with inspiring discussions, top-quality research talks, new friendships and fruitful networking. This year marks the 10th anniversary since the first SPP – and whether you attended the past editions or this is your first time – we hope you enjoy it!

Three years have passed since the last in-person SPP conference in Cambridge. But the Polonium Foundation team was busy! We hosted a range of online events – Polonium Webinars series, SPP '21 online edition, and Career Cafés. In 2020, we launched Polonium Network – a site to connect Polish researchers, and facilitate new connections and career developments. If you haven't already, do join Polonium Network platform for the opportunity to network, find advice from grant awardees or apply for academic or industry jobs.

Despite the pandemic disruption, our team has grown substantially, and we hosted exciting meetups in two new countries: Denmark and the USA. We established new partnerships and collaborations, and we are thrilled to announce our new events soon. One of the new initiatives that we will launch at SPP Oxford 2022 is the pilot Polonium Mentorship Programme. More details about this and other developments will also be available on our social media and through Polonium Foundation Newsletter. Stay tuned!

We are very thankful for all the people who have supported the Polonium Foundation - the Sponsors, Patrons, Partners, and Volunteers. We are especially grateful to everyone who has attended our events and told others about us. Thank you! You make everything worthwhile. We hope you have a great conference.

With Love, #KeepCalmAndCurieOn,

Magdalena Drożdż, SPP 2022 Coordinator,
Ala Santos, President and CEO,
and the Team of Polonium Foundation

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Day 1, Saturday 29 Oct

08:00 - 09:00	Coffee & Registration
09:00 - 09:30	Conference opening
9:30 - 10:30	*Keynote talk* **For Whom the Bell Tolls? Permissible Commemoration** *Zofia Stemplowska, University of Oxford*
10:30 - 11:30	*Panel discussion* **The Social Responsibility of Science in the International Context. Polish Perspective** *Led by the National Agency for Academic Exchange (NAWA)*
11:30 - 11:45	**Comfort break**
11:45 - 13:00	**Speakers session I: Life Sciences**
11:45 - 12:00	**Dancing on a single DNA molecule. How DNA-repair proteins find the broken sites?** *Artur Kaczmarczyk, Imperial College London, MRC-London Institute of Medical Sciences*
12:00 - 12:15	**Of dogs and men. How canines can help cure human cancers.** *Mikolaj Kocikowski, University of Gdansk, University of Edinburgh*
12:15 - 12:30	**Engineered enzymes: String pullers in cell communication** *Katarzyna Łepeta, Biozentrum, University of Basel*
12:30 - 13:00	**Invited Speaker talk: Rise of the machines in medical image understanding** *Bartek Papież, University of Oxford*
13:00 - 14:00	**Lunch & networking session**
13:45 - 14:00	Group Photo
14:00 - 15:00	**Seven tips for improving your mingling & networking skills** *Professional workshop by Olle Bergmann*
15:00 - 15:15	Comfort break
15:15 - 15:25	Announcement of a new Polonium Foundation's project
15:25 - 15:45	Partner presentation: Foundation for Polish Science
15:45 - 17:00	**Speakers session II: Humanities & Social Sciences**
15:45 - 16:15	**Invited speaker talk: Educating Wandering Minds** *Agnieszka Graham, Queen's University Belfast*
16:15 - 16:30	**Who I am? Where I belong to? The lived experience of acculturation and transnationalism of 2 generations of Polish migrants in Ireland** *Joanna Kossykowska, Technological University Dublin*

| 16:30 - 16:45 | **AI is a mirror carried along highway** |
| | *Adam Zadrożny, National Centre for Nuclear Research, University of Warsaw* |

| 16:45 - 17:00 | **Juridification and (bio)ethics – is legal positivism relevant in the age of technology?** |
| | *Malwina Tkacz, Cardinal Stefan Wyszyński University* |

| 17:00 - 17:30 | Coffee break |

17:30 - 18:30	*Keynote talk*
	Wildlife advice and wild life advice - a zoologist's take on juggling multiple careers
	Joanna Bagniewska, Brunel University London & University of Oxford

18:30 - 20:30	**Poster session**
	Buffet-style dinner
	Subject Round tables: IP & Data Protection
	Meet the Speakers & VIPs

| 20:30 - late | **After-hours social - TBD** |

Day 2, Sunday 30 Oct

| 08:30 - 09:00 | Coffee & Registration |

| 09:00 - 10:30 | **Speakers Session III: - Applied Sciences & Industry Talks** |

| 09:00 - 09:45 | **Invited speaker talk: Smart Radio for Digital Health** |
| | *Robert Piechocki, University of Bristol* |

09:45 - 10:00	**Predicting microbiome changes over time and upon perturbation: applications of machine learning to microbiome research and therapeutic strategies**
	Zuzanna Karwowska, Bioinformatics Research Group Structural & Functional Genomics Lab
	Malopolska Centre of Biotechnology Jagiellonian University

| 10:00 - 10:15 | **A massive question in Einstein's theory** |
| | *Jan Kożuszek, Imperial College London* |

| 10:15 - 10:30 | **The "Cyberbone" project means "bone printing" - the optimal method for the regeneration of bone defects** |
| | *Jacek Andrzejewski, Poznań University of Technology, Syntplant* |

| 10:30 - 11:00 | Partner presentation: Łukasiewicz Network: Science for Business |

| 11:00 - 11:45 | **Speed Networking & coffee** |

| 11:45 - 12:15 | Awards for the best presenters |
| | **Conference closing** |

WORKSHOP
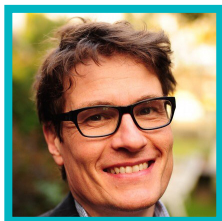
Seven tips for improving your mingling & networking skills
Olle Bergmann

Curiosity, empathy, and general knowledge – these are qualities which are helpful when you approach strangers in search of new contacts, future colleagues … and perhaps even friends for life.
• How to mingle successfully
• The art of networking
• Useful knowledge from psychology and rhetoric
• The benefit of knowing things
• Preparing an elevator pitch – a battle-proven protocol

Our workshop leader is Olle Bergman, Swedish communications trainer, writer, and avid Polonophile. In addition, he is an ambassador for Polonium Foundation.
"I generally consider Polish people as bearers of the best networking culture in the world", he says. "Nevertheless, I am hoping to be able to convey a tip or two, based on my experience as a traveling freelancer."

MENTORSHIP PROGRAMME

Are you a Polish undergraduate student in the UK, looking for some career guidance?
Or is your PhD thesis about to be completed (or freshly defended) and you would like to share your experiences?
We would love to connect you!
Sign up for our mentoring programme to gain a platform to exchange ideas, open new networking opportunities, receive mentoring training, benefit from visibility on our social media, and more.
The first edition of the programme is recruiting now and will run from December 2022 until June 2023.

Registration of mentors: 29.10 - 16.11.2022
Registration of mentees: 21.11 - 04.12.2022

Visit our website for more information and registration form:
https://poloniumfoundation.org/poloniummentoring

We are looking forward to meeting you!

Brought to you by Polonium Foundation in partnership with Federation of Polish Student Societies in the UK.

Foundation for Polish Science

Marcelina Firkowska
Foundation for Polish Science

Foundation for Polish Science has been in operation since 1991. It is a non-governmental, non-political, non-profit institution, which pursues the mission of supporting science. It is the largest source of science funding in Poland outside of the state budget. The Foundation realizes its statutory purposes through: support for distinguished scholars and research teams in all fields of inquiry; assisting innovative ventures and commercialization of scientific discoveries and inventions

Science for Business
Łukasiewicz Research Network

Marcin Kraska
Vice President of Łukasiewicz Research
Network for Research and Development

Manager and scientist with over 14 years of experience in management, including at an R&D facility. Doctor of Economic Sciences (Poznań University of Economics).

Prior to joining Centrum Łukasiewicz, Mr Kraska held the position of Director of the Institute of Logistics and Warehousing, where he also served as Head of the Centre for E-Economy. Member of the organisational team behind the formation of the Łukasiewicz Research Network.

Expert in research, development and management of national and international e-economy projects. For years, Mr Kraska has been actively involved in the development of e-government in Poland and the European Union. As a leader, he managed the implementation of a pilot version of the Single Point of Contact project in Poland (biznes.gov.pl), and cross-border digital public services projects within the EU's Large Scale Pilot; also co-authored proposals to simplify the law and optimise processes to remove barriers to the digitisation of public services. Business leader of the Digital Public Services stream and the Portal of the Republic of Poland as part of the 'From paper to digital Poland' Programme. Previously worked in the banking sector, with a focus on credit risk management. Co-author of the first two books on credit scoring published in Poland.

Author of over 50 publications, including articles, studies and books on e-economy and banking. Co-author of feasibility studies and financial analyses. Intern at the University of Bordeaux and the University of Geneva.

PARTNER TALKS

Andrzej Dybczyński
Director of Łukasiewicz-PORT

Manager and scientist with over 15 years of management experience, including management of research and development organizations. Humanities PhD. An MBA studies graduate of the Franklin University (USA). Dr. Dybczyński completed his internship at Georgetown University in Washington D.C. dedicated to the management of scientific organizations. A graduate of Cultural Studies and Political Science at the University of Wrocław and postgraduate Studies of Law and Economy of the European Union.

Since 2002, a Researcher at the University of Wrocław. Deputy Director of the Institute of Political Science at the University of Wroclaw in the years 2005-2012. Head of the Postgraduate European Union Structural Funds Study in the years 2009-2014. Senator of the University of Wroclaw in the years 2008-2012. Expert of the Public Debate Forum at the Chancellery of the President of the Republic of Poland in the years 2013-2015. Consultant to the Ministry of Defense in the years 2013-2015. Manager at IBM in the years 2014-2017 responsible for organizing and supervising the support division of project teams in the Western hemisphere. Managing Director at KGHM Cuprum Ltd. until February 2018.

Author of books and scientific articles in the international relations and negotiations area.

PARTNER TALKS

KEYNOTE SPEAKER

For Whom the Bell Tolls? Permissible Commemoration

Zofia Stemplowska
University of Oxford

Some people have made a mark on the world that is obviously horrific. But in some cases, people achieved worthy things while also committing wrongs. Is it permissible to commemorate publicly such people through statues, street names or regular special occasions? One answer is that it is not permissible to commemorate anyone who engaged in serious wrongdoing. I will argue that this is too restrictive. A different answer is to allow the statues that used to commemorate the wrongdoers remain provided they are altered through vandalising or contextualisation. I will argue that this is too permissive. Rather, where the commemoration genuinely harms or disrespects people because it commemorates salient wrongdoing, there is a right against it. I will offer a test for which types of wrongdoings qualify as salient in this context.

Zofia Stemplowska is Professor of Political Theory at the Department of Politics and International Relations and Asa Briggs Fellow of Worcester College, University of Oxford. In 2022-23 she is a British Academy Mid-Career Fellow for her work on commemoration. She is the co-editor of Responsibility and Distributive Justice (OUP, 2011) and Political Philosophy, Here and Now (OUP, 2022). Prior to joining Oxford, she was based at Warwick, Reading, Manchester and Stanford Universities. She grew up in Warsaw.

SPECIAL GUEST

Wildlife advice and wild life advice - a zoologist's take on juggling multiple careers
Joanna Bagniewska
Brunel University London, University of Oxford

When it comes to career, can we have it all? Well, maybe not all, but a good deal nonetheless? In this talk you'll find out how to make the most of multiple careers, how to dabble in popular science and come out unscathed, what's it like at the forefront of vaccine communication in COVID times, and why is academia like a tongue-eating louse. Join zoologist Joanna Bagniewska for a wild mix of career advice, zoological trivia and storytelling.

Dr Joanna Bagniewska is a zoologist and a science communicator. She obtained her MSc and doctorate from Oxford University's Zoology Department, specialising in behavioural ecology and conservation biology; she then lectured at Nottingham Trent University and the University of Reading. Joanna is passionate about science communication, having won British Council's FameLab Poland and the Wellcome-funded "I'm a Scientist, get me out of here!", given a TEDx talk and performed at science stand-up comedy events; her first popular science book, "The Modern Bestiary", has been published this year. She currently splits her time between two roles: Senior Lecturer in Environmental Sciences at Brunel University London, and Communications and Public Engagement Officer at Oxford University's Department of Paediatrics.
www.joannabagniewska.com

INVITED SPEAKERS

Educating Wandering Minds
Agnieszka Graham
Queen's University Belfast

People's attention is not steady; it can drift from its current train of thought to consider other times, places, and people. When attention becomes disengaged from the external environment and directed toward internally generated thoughts it is referred to as mind wandering. Although historically understudied, mind wandering now attracts extensive psychological research, due to demonstrations that 'experience-sampling' methods can be used to measure mind wandering and assess its effects. Studies of daily-life mind wandering indicate that it consumes a substantial amount of time, and that recognising and correcting for this requires certain metacognitive skills. While mind wandering is not always problematic, it can be costly in educational contexts because learning depends on students extracting information from the learning environment and aligning this with existing knowledge; mind wandering signals a breakdown in this process. In the last decade, the link between mind wandering and learning has been studied extensively in adult student populations. Yet, despite its clear educational significance, there are extremely few studies examining mind wandering in the childhood period. In this talk I will outline what is already known about mind wandering in children before discussing my recent and ongoing research investigating the link between mind wandering and learning in primary schoolers.

Dr Agnieszka Graham graduated from the University of York with a degree in Psychology before earning her PhD from the University of Cambridge in 2016. Between 2016 and 2018 she held postdoctoral positions at Queen's University Belfast and the University of Edinburgh. She returned to Queen's in 2019 to take up a lectureship in applied developmental psychology. Dr Graham's programme of work focusses on how executive functions develop, how they underpin school readiness, and how their development can be best supported. Her research has a strong translational perspective that uses core principles of developmental and cognitive psychology to understand classroom learning and equip practitioners with research-based insights. As an advocate for open science practices and reproducibility initiatives, Dr Graham works to improve the transparency of psychological research to inform decision-making within and beyond academia.

Rise of the machines in medical image understanding
Bartek Papież
University of Oxford

Artificial Intelligence (AI) applied to Medical Imaging has attracted enormous research interest in recent years. With the increasing availability of medical imaging big data, the relevance of machine learning and image analysis methods as means to automate existing diagnostic and clinical pathways and extract relevant imaging features i.e. image-derived biomarkers, together with the need for development of the methods that can efficiently operate on such data is 'on rise'. Simultaneously, while machine learning and image analysis methods in medical imaging have already been shown to be promising in detection and assessment of certain diseases in their treatment, one of the major limitations to adoption and clinical approval of such methods is so-called their black-box nature stemming from the lack of explanations of the developed AI models. Finally, machine learning and image analysis applied to biomedical imaging can be also utilized in better understanding of disease mechanisms and identifying their early precursors thus creating opportunities for early detection and prevention.

Bartek Papież is Associate Professor at the University of Oxford, where he leads the research group at the Oxford Big Data Institute. The core research interest of Bartek's group is developing Machine Learning and Image Analysis techniques that could be applied to biomedical imaging to advance our understanding of human diseases and improve their diagnosis and treatment. He completed a PhD at the University of Central Lancashire (2012), then he joined the Oxford Biomedical Image Analysis Laboratory, and worked as a post-doctoral research fellow at the Oxford Cancer Imaging Center (2012-2018). In 2013, he was awarded a prestigious Young Scientist Award by the Medical Image Computing and Computer Assisted Intervention Society. In 2015, he was elected to an EPA Cephalosporin Junior Research Fellow at Linacre College, Oxford. In 2018, he was awarded the Rutherford Fellowship at Health Data Research UK to start a research group at the Big Data Institute. In 2020 and 2021, he was Chair of Conference on Medical Image Understanding and Analysis. He is also Lecturer in Information Engineering at St Peter's College and Lady Margaret Hall, Oxford.

Smart Radio for Digital Health
Robert J. Piechocki
University of Bristol

Physical activity and behaviour patterns play a significant role in an array of long-term chronic health conditions such as diabetes, dementia, depression, COPD, arthritis and asthma. The UK currently spends 70% of its entire health and social care budget on these types of conditions. Long term physical activity and behaviour monitoring is best gleaned at home, where it might be possible to install bespoke sensor platforms and where people from higher risk groups tend to spend most of their time. However, we are increasingly surrounded by radio waves originally intended only to deliver entertainment, information, and home automation. A classic example is a home Wi-Fi system. What if we could find another purpose for such radio systems? In this talk I will overview recent research activities in opportunistic WiFi sensing for digital health applications.

Robert Piechocki is a full Professor in the School of Computer Science, Electrical and Electronic Engineering and Engineering Maths, University of Bristol. His research interests span the areas of Connected Intelligent Systems, Wireless Networks, Information and Communication Theory, Statistics and Machine Learning. His domain expertise is Connected and Automated Mobility (CAM) and wireless sensing for eHealth. In his research work he strives to develop solutions for decision making and inference in networked systems which communicate over resource constrained and unreliable links. Example of such networks are fleets of CAMs, which demand ultra-reliable and low-latency connectivity, despite very rapid changes in network topology and severe interference. Additional interests include contextual sensing in energy constraint IoT systems, such as battery powered IoT systems in residential healthcare applications. Rob has published over 200 papers in peer-reviewed international journals and conferences and holds 13 patents in these areas. He regularly advises the industry and the Government on many aspects related to connected intelligent technologies and data sciences.

INVITED SPEAKERS

SPEAKERS

The "Cyberbone" project means "bone printing" - the optimal method for the regeneration of bone defects

Jacek Andrzejewski

Poznan University of Technology, Syntplant

The aim of the project is to develop a technology for the production of personalized 3D printed implants from biopolymer filaments with bone-forming properties. Implants are personalized (for a specific patient) in 3 stages: the shape of the defect, the implant printout's internal structure, and the filament's composition. So it is an interdisciplinary project covering polymer engineering, 3D design and printing, and medicine.

During the 3 years of the project, several studies were conducted in the areas of 3D imaging of bone defects, implant design, biopolymer processing, sterilization, and 3D printing, the effects of which are verified in the course of strength tests and computer simulations, in preclinical studies (in vitro) and in experiments / clinical trials. All the results of the research conducted so far are positive. The first of the conducted clinical experiments is already bringing positive results for patients.

We are one of the first research teams in the world that combined the areas of: 3D imaging and design, biopolymer processing technology with bone-forming properties, 3D printing technology. We are also one of the first research teams in the world to have positively verified the combination of these areas. These are probably one of the most optimal implants in the world for the treatment of bone defects.

Dancing on a single DNA molecule. How DNA-repair proteins find the broken sites?

Artur Kaczmarczyk

Imperial College London, MRC-London Institute of Medical Sciences

Our DNA is constantly exposed to damage. Per 1 day, about 70000 DNA lesions are generated in human body! Luckily, we can live healthy and long lives because "broken" DNA can be efficiently repaired. However, if the DNA repair pathway is somehow "corrupted", cells can turn into cancers. Our aim is to understand how fast the protein can target specific DNA lesion. Knowing the mechanism of the DNA repair process will help to design new anti-cancer drugs in future.

I use novel single-molecule biophysics tools. During an experiment, I literally grab one DNA molecule at a time using a laser or magnetic tweezer. Subsequently, I observe the protein interacting with that suspended DNA in real-time. This powerful approach gives more information than a static image we know from biology textbooks, because it shows the protein "in action". With our approach, in a single image we can capture an entire trajectory of a DNA-repair enzyme that binds to DNA helix, slides along its length, subsequently recognises a target sides and performs enzymatic digestion of the nucleic acid.

In biological research, we are used to seeing more and more detailed images of molecules resolved in fancy high-resolution microscopes. But these beautiful pictures are useless if we don't understand the mechanism of how these molecules work. Single-molecule approaches are cutting-edge techniques that enrich our understanding of fundamental problems in life sciences.

SPEAKERS

Predicting microbiome changes over time and upon perturbation: applications of machine learning to microbiome research and therapeutic strategies

Zuzanna Karwowska

Bioinformatics Research Group
Structural & Functional Genomics Lab
Malopolska Centre of Biotechnology
Jagiellonian University

Given the importance of gut microbiota in health homeostasis, understanding how the gut microbiome changes in time emerges as a difficult but vital challenge. However, most of the research on the gut microbiome uses cross-sectional data to find differences in microbiome composition between groups. This ignores the importance of the dynamic changes in the microbiome and impedes the analysis of causality and dynamic interactions between bacteria.

We are using a machine learning-based framework in order to understand the dynamic interactions within the healthy human gut microbiome and to what extent we are able to predict it. The use of time series data enabled us to model microbiota for each subject and overcome the limitation of the uniqueness of gut microbiota between people. In our project we answer questions such as: how bacteria interact with each other in time; are interactions between bacteria unique for a host or similar between subjects; to what extent gut microbiome is self-explainable; are interactions within a phylogenetic/taxonomic group stronger; which bacteria are the main drivers of the gut microbiome community?

Our results and subsequent work will help us to better understand the dynamic interactions within the human gut microbiome. Understanding them and being able to predict the behavior of bacteria in time can help plan targeted microbiome-oriented interventions. Our research can be used in microbiome-based personalized therapy where we can plan how to model or manipulate microbiome changes (e.g. through personalized probiotics interventions) and anticipate microbiome-driven diseases.

Of dogs and men. How canines can help cure human cancers

Mikolaj Kocikowski

International Centre for Cancer Vaccine Science, University of Gdansk; The Roslin Institute, The Royal (Dick) School of Veterinary Studies, The University of Edinburgh

Immunotherapy is a breakthrough method of treating cancer. However, it harms some patients, likely due to artificially induced mouse tumours being used as an (inadequate) research model. Cancers spontaneously occurring in companion dogs resemble their human counterparts, thus providing a perfect research model for the benefit of both species. To enable its popularisation, I'm building a necessary toolbox of canine genetic data and antibodies.

To this aim, I worked on three objectives. 1) I demonstrated that the same drug targets are relevant in dog cancers as in human ones. I achieved that by measuring the activity of the crucial 43 genes across 13 canine cancer types; 2) I characterized two novel antibodies targeting canine PD-1 - the most well-recognized protein of the immune-modulating family called Immune Checkpoints. The antibodies constitute both a tool for further research and potential cancer drugs; 3) I have developed an algorithm for converting common murine antibodies to fully canine ones. It will enable the generation of a repertoire of antibodies safe for in vivo use in veterinary oncology.

Comparative oncology is an approach that bridges the gap between studies of cancers naturally developing in humans and other species. That provides deeper insight into disease mechanisms while undermining the ossified status quo of biomedical research and clinical trials. Dogs are our close genetic cousins and suffer from cancer with high prevalence. Involving them in cancer research will contribute to saving both human and canine lives.

SPEAKERS

Who I am? Where I belong to? The lived experience of acculturation and transnationalism of 2 generations of Polish migrants in Ireland

Joanna Kossykowska

Technological University Dublin

The study investigates the psychological/individual level of acculturation and discusses cultural identity, language use and family context involved in migration. It examines migrants' engagement in the home country and their emotional experiences through the lens of transnationalism. It explores migrants' feelings about living between two cultures and their desire to return, as emotions play a crucial role in creating people's migration experiences.

Interpretative Phenomenological Analysis is an appropriate method to explore migration experiences as it is concerned with the detailed examination of human lived experience. IPA allows for in-depth analysis and interpretation of participants' personal experiences and perceptions. It combines the theoretical orientations of phenomenology (lived experience), hermeneutics (interpretation), idiography (individual). It involves the detailed analytic treatment of each case followed by the search for patterns across the cases. It is concerned with the balance of convergence and divergence within the sample, presenting both shared themes and pointing to the particular way these themes play out for individuals.

This research is distinguished from the others as the migrants' lived experience of acculturation and transnationalism has not been carried out using IPA. The findings showed the complex identity struggle of a blended identity of Polish-Irish – being neither and being both. Also, it showed the mother tongue is treated as a precious gem and that the 2nd generation took the roles of parents and the enormous responsibility for translation for their parents.

A massive question in Einstein's theory

Jan Kożuszek

Imperial College London

I work in the field of gravity, looking at possible modifications to Einstein's theory of General Relativity. My current project concentrates on the recently formulated model known as Massive Gravity. It has several interesting features – perhaps most important of which is its ability to explain Dark Energy. However, our understanding of its behaviour is still at a very basic level: my aim is to change that.

My work has been concentrated on finding a dynamical formulation of Massive Gravity. In short, this means a rewriting of the theory's equations in a way that permits numerical simulations of gravitationally interacting systems. In General Relativity, the analogous result is known as the ADM formalism. However, generalising it to the problem at hand proved challenging, due to certain additional constraints present in Massive Gravity. Nevertheless, we have had some success, and managed to set up computer simulations of simple, spherically symmetric setups. Along the way, both numerical and analytical techniques proved indispensable, and we now understand the theory a lot better.

This is a transformative time for gravity research: with a wealth of new data, from gravitational waves to black holes, we can test our theories better than ever before. We know Einstein's General Relativity is not everything there is: we still don't understand Dark Energy, the nature of black holes, and many more fascinating phenomena. I hope to help find answers to some of these questions and understand better the laws of our Universe.

SPEAKERS

Engineered enzymes: String pullers in cell communication

Katarzyna Łepeta
University of Basel

Communication is everything. This is as true for us humans, as it is for cells to allow for proper development and homeostasis of an organism. Kinases are the key players in cell communication. The vast complexity of the signalling networks they orchestrate poses severe challenges in understanding single communication lanes as overlapping effects produce incredibly complex responses. How to dissect a single chat from a group chat in cells?

We coupled the kinase to an antibody fragment, a so-called nanobody, which recognizes and activates the chosen, tagged recipient protein. Nanobodies can be functionalized by fusing them to various effector domains, allowing for tissue-specific manipulation of protein of interest. Our main protagonist is a fly embryo – amazing model to study animal development. We successfully evaluated our novel tool in developing embryos using advanced microscopy to follow tissue behavior and organ formation. Thanks to fly genetics - we can compare side by side regions of the engineered and control tissue. Our tool allowed also to address the balance between contraction and stretching for proper development.

Dysregulation of kinase signalling perturbs animal development and is a hallmark of numerous diseases. Approaches for regulating kinase activity, be it for dissecting signalling pathways, for building synthetic biology modules, or for therapeutic purposes, are of great need. How to channel the signal and activate only one pathway of the intricate kinase meshwork? To address this need, our tool provides for the first time means to direct the phosphorylation to a chosen tagged target in vivo.

SPEAKERS

Juridification and (bio)ethics – is legal positivism relevant in the age of technology?

Malwina A. Tkacz

Cardinal Stefan Wyszyński University

The influence of law in contemporary societies is growing to include the rapidly expanding field of biotechnology, which is currently one of the fastest-growing fields. The research aims to inspect the relationship between modern (positive) law and ethics in biotechnology. Is positive law relevant to new problems of science?

The following methods will be used in my research: analysis of selected scientific and popular science publications, philosophical texts, legal acts, and documents, as well as a comparative method in relation to the concepts developed by discussed authors. The result of the research will be an inspection of the legal procedures in, i.e. biotechnology and an analysis of the ethical standards applied.

The analysis of legal positivism is fundamental from the perspective of research on the philosophy of law and modern (bio)ethics. There is a debate whether modern versions of this concept lead to the separation of legal norms from the axiological foundation and create the possibility of creating a law contrary to the principles of the common good, equity, and justice. I will try to answer if legal positivism is relevant anymore.

AI is a mirror carried along high way

Adam Zadrożny

University of Warsaw,
National Centre for Nuclear Research

One of biggest issue of the AI is a bias. AI was hoped to be completely rational tool and even 5 years in past there was a bit of hope that AI will have less bias than humans. But the source AI bias is taken out of the data that we provide and way that we train neural networks. One can speculate that bias in AI like in humans is form of cutting short calculations. But, what if we do not fight bias, but instead we will use it to study humans and misconceptions that are present in society?

In our research we study text-to-image models which are not de-biased, like Craiyon.com. Text-image pairs were crawled from the web. Those models have some real world knowledge and some concepts that were carried along the trained data. We can ask algorithm to paint something, but not make it fully precise to force model to use it real world knowledge and refer to biases. Some of those biases might be linked to misconceptions present in the society. Like prompt 'autistic child' will be 9 out of 9 cases a boy in preschool age, but 'autistic girl' will be presented as in school years. This reconstructs the fact that diagnosis of girls with autism comes later than boys.

Studying a bias of models help to study biases in the society.

With AI text-to-image models we got a tool to enter collective imagination of the society formed by media. It might be life saving thing, like realisation that we are not aware that all the mammals can carry rabies (not only dogs and raccoons). But it might be a new sociological tool to study social groups by fine-tuning text-to-image model on media they read.

POSTER PRESENTERS

Treatment outcomes and CPAP adherence in patients diagnosed with Obstructive Sleep Apnoea (OSA) in relation to diagnostic method

Monika Chowaniec
University of Cambridge

Obstructive sleep apnoea (OSA) is the most common sleep disorder in the general population, causing symptoms such as excessive daytime sleepiness. The condition can be diagnosed on one of three types of sleep study: overnight oximetry test, respiratory polygraphy or polysomnography (PSG). The aim of our study was to establish how treatment outcomes and treatment adherence differ depending on the method of diagnosis used.

The study reviewed patients started on CPAP treatment at Royal Papworth Hospital in 2018, dividing them into 3 groups depending on diagnostic method: overnight oximetry, respiratory polygraphy and PSG. Anthropometrics, Epworth Sleepiness Score (ESS) and treatment outcomes (compliance and ESS) were analysed using one way ANOVA and non-parametric tests. Patients diagnosed with OSA on PSG were significantly younger than those diagnosed on oximetry and polygraphy, also with lower BMI and lower severity of disease. The PSG group were less compliant with CPAP and more likely to stop treatment. There was no difference in sleepiness reduction between the 3 groups for patients that attended follow-up.

Our project demonstrated that the patient population who required the most invasive method for diagnosis (PSG) tended to differ from the other groups - both in their clinical presentation and compliance to treatment. Sleepiness reduction is significant for quality of life, so the fact it was found to be independent of the diagnostic method could have implications for approaches to OSA diagnosis and the role of sleep studies within it.

How to restore the largest organ of our body? Muscle structure and its effect on therapies for Duchenne Muscular Dystrophy

Katarzyna Chwalenia
University of Oxford

My research focuses on defining the optimal therapeutic approach for Duchenne muscular dystrophy (DMD), a devastating muscle-wasting disorder caused by lack of dystrophin protein. Using immunofluorescence combined with high-resolution confocal microscopy and advanced image analysis I'm investigating effects of different therapies at the level of a single muscle fibre. We are aiming to provide a novel perspective on measuring the success of currently developed muscle restoration strategies.

We have developed a novel mouse model that is characterised by chimeric myofibers, consisting of both dystrophin-expressing and non-dystrophin-expressing nuclei. These exhibit a distinctive, patchy dystrophin distribution pattern along the fibre that mirrors our previous observations of animals treated with CRISPR/Cas9. Immunofluorescence analysis of muscle sections and single myofibers shows that dystrophin is spatially restricted and ineffectively transported within the myofiber. Moreover, high-resolution confocal microscopy confirms that the microtubule network, which is essential for RNA and protein distribution throughout myofibers, is highly disordered in DMD conditions linking efficient molecular transport to dystrophin presence.

The efficacy of therapies for DMD is usually considered as the amount of restored dystrophin, whereas the correct localisation of the protein within long, multinucleated myofibers has been largely ignored or assumed. We go back to the basics and show that the complex organisation of myofibers restricts distribution of corrected protein suggesting and important limitation for some, currently developed muscle restoration strategies.

POSTER PRESENTERS

Outside of the gene code: Gene expression regulation by nuclear pore acetylation

Bogdan Cichocki

IGMBC - The Institute of Genetics
and Molecular and Cellular Biology,
University of Strasbourg

Protein acetylation and deacetylation play a major role in modulating gene expression. However, the contribution of non-histone acetylation in gene expression is poorly understood. In our group we try to understand how nuclear pore complex (NPC) acetylation modulates cell asymmetric division and gene induction in yeast. Furthermore, we validate if such mechanisms are conserved in higher eukaryotes and could contribute to cell differentiation.

Previously, we demonstrated that the cell fate of yeast after asymmetric cell division is dependent on lysine deacetylase Hos3 and its counteracting lysine acetylase Esa1. These enzymes act on the NPC basket component Nup60. The acetylmimic mutation on Nup60 (Nup60-K467N) partially rescues budding delay during Esa1 inactivation. We have found that nuclear mRNA export is inhibited by Hos3 and promoted by Esa1 and Nup60 acetylation. Specifically, the Nup60-KN rescue is mediated by accelerating expression and mRNA export of cyclin Cln2 which in turn stimulates cell cycle progression. Similarly, nucleoporin acetylation regulates expression and mRNA export of inducible genes like in the GAL1-10 locus.

These data reveal a novel role in mRNA export for the evolutionarily conserved Esa1. They also demonstrate that differences in Nup60 acetylation determined by the interplay between Esa1 and Hos3 allow the modulation of mRNA export capabilities of NPCs in different cell types, shaping their cell proliferation profiles. The role of gene positioning in this process as well as the characterisation of the NPC acetylation sites are currently being investigated.

Forming the case for formative assessment: How social media groups can change education. The case of Poland

Adelaide Di Maggio

Faculty of Education, University of Cambridge

The research explored how social media users employ ideational power in influencing educational practices. It did so by looking at the case of promoting formative feedback practices within one of the biggest Polish Facebook groups on education "Szkoła Minimalna", where many have ended up adopting this practice. Understanding these tools can support bottom-up democratic institutional reform by helping citizens learn how to better push for change.

Data was collected and selected from the group's posts on formative feedback (FF). The most common arguments for adopting the practice were identified and posts were sorted into themes. Sample texts from each theme were then analysed via Critical Discourse Analysis, to study ideational power (how discourses and norms were used to persuade and silence others). Results showed that users rely mostly on success stories, parents' and pupils' support, norms of diversity, autonomy, personal development, and oppression, while trying to persuade others but also shame those that do not agree with them. The most powerful argument for FF was improving educational quality.

The study suggests that social media communities (SMCs) use discourses to enable change, possibly at a pre-institutional stage. Constituted by citizens, SMCs can influence stakeholders in a democratic way to alter practices in their institutions. The study is an example of the conditions under which this happens, but more research is needed. Further knowledge can help in understanding institutional stakeholders' priorities to devise policies.

From metallomics to drug target(s)

Urszula Doboszewska

Department of Pharmacobiology,
Jagiellonian University Medical College

Metallomics is a scientific discipline which studies the metal-components of life. My research focuses on zinc, which is among metal-elements essential for humans. Zinc is present in many proteins but it is also an intracellular messenger and a neuromodulator. Last but not least, it may act via a specific receptor, namely GPR39. We hoped that activation of this receptor will slow down the process of epilepsy development (epileptogenesis).

We used genetically unmodified mice, GPR39 knockout mice and zebrafish larvae. We subjected them to models of acute seizures or a chronic model of epileptogenesis. We measured zinc in their sera and brains as well expression of proteins of the receptor signalling pathway. Our results are "negative" – they did not support the existing hypothesis. Conversely to this hypothesis, we found that activation of the GPR39 receptor aggravated epileptogenesis in an animal model.

We believe that our 'negative' results are indeed 'positive' to science. We did not demonstrate anti-epileptogenic- but pro-epileptogenic-effect. This data suggest that worsening of epilepsies may be a side-effect of future drugs that will work by activating GPR39. While no such drug is now on the market, drugs in clinical trials for cancer are agonists. Agonists are also being developed to treat other diseases.

POSTER PRESENTERS

Do we really know how cancer immunotherapy works? Shedding new light on FDA approved therapies and their safety

Katarzyna Dziubek

International Centre for Cancer Vaccine Science, University of Gdansk

Cancer treatment has been revolutionized by PD1/PDL1 immunotherapies, which target PD1 - an immune checkpoint on immune cells, resulting in immune-mediated tumour killing. Only recently, PD1 was also identified on cancer cells but it is unclear how it affects outcome of the therapy. By revealing mechanism of PD1 signalling in cancer cells, my research aims at clarifying the safety of PD1/PDL1 immunotherapy in patients with tumours expressing PD1.

Liquid chromatography – mass spectrometry (LC-MS) is a high throughput technique, which allows to identify global changes in cellular proteome with high sensitivity and great accuracy. Our group implemented LC-MS analysis to reveal changes at global proteome level upon modifications of PD1 expression in cancer cells. Many of the identified proteins are known to play a role in tumour growth, proliferation or ability to metastasize. Also, with small modifications we are utilizing this technique to search for new PD1 interactions in cancer cells, contributing to better understanding of its role and significance in cancer patients, especially those treated with PD1/PDL1 immunotherapy.

Even though cancer treatment was revolutionized by immunotherapies, some patients still do not respond to therapy or present rapid disease progression upon therapy implementation. Our group revealed that besides targeting PD1 on immune cells, PD1/PDL1 may act on cancer PD1, resulting in patient's relapse. It is crucial to determine cancer PD1 significance and safety of immune checkpoint blockade in cancer patients.

POSTER PRESENTERS

Automatic generation of robotic system controllers based on a formal specification

Maksym Figat

Warsaw University of Technology

My research focuses on the problem of automatic generation of robotic system controllers out of a formal specification. The main objective of my research was to develop a universal method of specification of robotic systems enabling both automatic code generation and the analysis of robotic system models. The proposed solution significantly simplifies the process of creating robotic systems and thus contributes to the field of robotics.

The central element of my research is a parameterised meta-model that describes a generic robotic system taking into account both its structure and activities. The meta-model is represented as a 6-layer Robotic System Hierarchical Petri Net (RSHPN). The required system model emerges from the meta-model by appropriately parameterising the RSHPN. The Robotic System Specification Language was developed to streamline the process of parameter definition. The resulting single RSHPN model is used both to verify certain system properties and to automatically generate controller code. The proposed approach is exemplified by specification and implementation of four different robotic systems.

The number of service robots is expected to triple in 2023 compared to 2019. The significant increase in robot applications entails an increase in the number of new robotic system implementations. The software development of a robotic system is challenging. Hence, tools to facilitate the design of such systems are in high demand. My research focuses on the automatic generation of robotic system controller software from the formal specification.

Detecting malaria from a bird's eye view - mapping malaria risk in sub-Saharan Africa using satellite images

Iwona Hawryluk

Imperial College London

Maps of infectious disease are integral to guiding public health policy. Typically prevalence data is collected through conducting household surveys, but these are extremely time- and resource-consuming and cannot be regular. Statistical models, which use a range of environmental covariates, are critical to fill these data gaps. The goal of my project is to predict the malaria prevalence across Africa using satellite images and Deep Learning

We propose a new method of predicting malaria based on raw satellite images. Usually practitioners need to manually derive environmental or climate covariates (elevation, precipitation, temperature) from those images. Our approaches based on Convolutional Neural Networks (CNNs) which are popular tool for many computer vision tasks. Here, we show that using a CNN we are able to automatically detect predictors of malaria, such as water bodies, forests, etc, from unprocessed satellite images. The model we propose is able to systematically achieve better performance than traditional models which use a regular suite of environmental covariates.

This work shows that it is possible to get accurate estimates of malaria prevalence even for locations which are hard to access due to the geographical position or political situation, without the need to manually extract the predictors from satellite images. This can aid the public health policy makers to discover places which have a particularly high malaria risk, and target those with interventions aiming to decrease malaria levels.

Can zombies suffer from depression? Introduction to the problems of phenomenological psychopathology

Martyna Iwanicka

University of Warsaw

My research aims to outline the importance of the non-reductive approach to mental disorders. Drawing on Chalmers's famous thought experiment about zombies I argue that psychopathology is more than just a brain disease. Having depression requires an ability to have first-person experiences, strictly related to the possession of a phenomenologically understood consciousness. Thus, in this phenomenological terms, psychopathology is a disorder of subjectivity.

In my research, I focus on philosophical analysis using terminology from the field of phenomenology. Concepts such as consciousness, subjectivity, intentionality, and temporality are particularly taken into account. The phenomenological method is also used in the analysis, although it is not carried out with the transcendental rigor postulated by its authors. In the context of the subject related to the nature of mental disorders, the method of the thought experiment is also adapted. Namely, the famous Chalmers's thought experiment on philosophical zombies is developed in the context of depression.

Understanding the nature of mental disorders is a pressing problem for all fields of science, humanities included. The phenomenological approach to psychopathology gives us not only an access to a first-person perspective but also a valuable and detailed terminology. Its presumption that mental disorders are closely related to the structure of subjectivity and consciousness may be crucial for developing new perspectives in the domain of mental health.

Extent and impact of microplastics on soil nutrients and biota: a trade-off assessment

Joanna Jesionkowska
The Open University, School of Environment, Earth & Ecosystem Sciences

While water treatment effectively removes microplastics from water, microplastics get concentrated in the sludge. This sewage is subsequently spread in agricultural soils for crop production. Sewage sludge can supply nutrients for crops, however, sludge contains potentially toxic elements, such as microplastics. Once in soil, microplastics could induce changes in soil fertility and also pose a potential threat to plant performance and crop productivity.

We comprehensively reviewed the current status of knowledge on microplastics in sludge and soil on detection, occurrence, characterization, source, and potential risk.

The objective of this study is to review the extent of microplastics added from the sludge, the potential impacts of sludge amendment on nutrient availability and soil biota, in order to reveal the trade-off between benefits and risks of using sewage sludge from the perspective of microplastic pollutants.

Change in legal services - legal technology

Karolina Mania

Faculty of Management and Social Communication, Jagiellonian University

The poster aims to present the research results related to the digital transformation of society and the economy.

The project will show an image of a technology map that allows us to identify IT solutions that have a major impact on the legal services market and entities (organizations) operating in it. he results of the analysis of the legal tech industry allowed me to obtain new knowledge relevant to three disciplines: legal sciences, management, and IT.

The dynamic development of the IT services sector, offering solutions, systems, and IT tools dedicated to the legal industry, initiated the creation of new technology industry, closely addressing its services to lawyers. The legal technology services sector has an increasing impact on the current image of the global legal services market. Working with a lawyer, we need to revise the lawyer's image in our head and see how many improvements legal tech tools bring.

PR specialist - who are you? What do job offers tell us about PR professionals in Poland

Beata Milewicz

University of Warsaw

Years ago, I was dreaming about PR job that "millions of girls would kill for" like Andrea from "Devil wears Prada". However, the job descriptions were too schematic, so I didn't know what to expect. If I got a job, I had to deal with ambiguity. In my research, I wanted to find out if the job descriptions for PR employees had been clarified enough to specify the professional duties and as a result answer the question: PR specialist: who are you?

I analyzed 300 job offers published on the most popular in Poland PR portal www.proto.pl from 02/01/2020 to 26/06/2020. I used polish innovative web application called korpusomat.pl. It is a simple tool to create linguistic corpora. User uploads text files which are automatically tagged and made available to search and download. I set up the linguistic corpora based on collected job offers and then I analyzed frequency lists, keyword, and concordance which allowed me to extract essence of the most frequently wanted skills and answer the questions: Are job offers for PR specialist in Poland clearer and unambiguous? What do job offers tell us about PR professionals in Poland?

The most popular skills and qualifications described in job offers for PR experts in Poland are strong verbal and writing communication skills, work under pressure, higher education, good ability to organize work, and interpersonal skills. PR job descriptions are very schematic and equivocal. Skills and qualifications are also common for other new professions which does not make it easier for employees to find their place on the market.

POSTER PRESENTERS

Known genetic variant new rediscovered: A common calpain-3 variant explains a significant number of rare neuromuscular disorders in Eastern and Central Europe

Magdalena Mroczek
University of Zurich

Limb-girdle muscular dystrophies (LGMD) are a group of rare neuromuscular diseases that manifest with weakness in the arms and legs. LGMDs are caused by genetic defect. In around 20-30% of LGMDs no pathogenic genetic variants are identified. A significant number of patients in Central Europe carry an intronic variant in Calpain-3 (c.1746-20C>G) that is described as pathogenic in LGMD patients, however seems to be too common to be causative.

We collected clinical data from 14 LGMD patients and performed molecular studies (RNA, protein). The frequency of the variant was calculated from population of Russia, Latvia and Poland.

The patients carrying c.1746-20C>G together with another pathogenic CAPN3 variant presented a phenotype consistent with LGMD of mild/medium severity. We reported five unaffected individuals homozygous for c.1746-20C>G and three affected, showing a late-onset, mild LGMD phenotype. We hypothesize that c.1746-20C>G is a hypomorphic variant with a reduction of RNA and protein expression and only individuals having a higher ratio of abnormal isoforms are affected. The variant is so frequent that it can be involved in the pseudodominant inheritance pattern.

Relatively common variant can be causative for rare diseases. Reclassification of the CAPN3 variant c.1746-20C>G from variant with a conflicting interpretation of pathogenicity to hypomorphic explains a large number of unidentified LGMD cases in Eastern and Central Europe. The very high frequency of the variant may result in the pseudo-dominant inheritance. International cooperation is crucial in the area of rare diseases.

Electric detection and characterisation of single cells, proteins and viruses

Pawel Puczkarski
University of Oxford

Biological particles, such as cells, proteins, viruses are of high importance for both medicine and research in bioscience. Some bioparticles, which may be responsible for a variety of phenomena in living systems (e.g. cancer markers) might occur at very low concentrations. New methods are necessary to unambiguously detect and characterize physical properties of such bioparticles, with the ultimate goal of their identification and discrimination.

I'm applying methods of physics and nanotechnology to develop an experimental platform for characterisation of single bioparticles. My approach relies on the fabrication of nanoscale pores, that are capable of trapping single bioparticles for extended time in predefined locations. Such pores are subsequently equipped with a pair of micro electrodes, which provide a readout mechanism for particle properties. The electrodes are driven by AC electric current with a range of frequencies. Current passing through a pore is modulated by the presence of the bioparticle, allowing to characterise its properties, such as size, composition, electric charge and more by the method of impedance spectroscopy.

Bioparticles occurring in living systems, are often difficult to handle and appear in low concentration, which makes them difficult to detect with macroscopic techniques. The ability to detect and identify single bioparticles would be a game changer in medical diagnostics, allowing for detection of various biomarkers, characteristic of serious health problems such as cancer, early after their development and still before onset of any symptoms.

POSTER PRESENTERS

Creating Safer Space research network. We strengthen civilian capacities for nonviolent self-protection in conflict affected areas

Agnieszka Ziatek-Tith
Department of International Politics at Aberystwyth University

Creating Safer Space - an international research and impact collaboration: explores how violence against civilians can be deterred or prevented by civilians without the use or threat of force aims to understand and support unarmed civilian protection and self-protection amidst violent conflict to strengthen civilian capacities for protection to support local efforts to transform conflict nonviolently as a basis for lasting peace with social justice

The Creating Safer Space project provides training on innovative research methods, such as arts-based, participatory, or digital methods & we are also funding research projects around the world using those methods. Participants can use playlist on YouTube that includes training workshops on arts-based research methods organised by Strathmore University Business School, Kenya and Chulalongkorn University, Thailand, to name a few: "Data generation with creative methods" by Arafa Salim Baya; "Sustainable Education through Heritage and Performance" by Dr Sreenath Nair; And two recordings of CSS Research Cafés on arts-based research methods (using drawing and textiles as a research method).

The Creating Safer Space supports projects around the world that further our understanding of Unarmed Civilian Protection (UCP) & community self-protection. We believe that this bottom-up, civilian-to-civilian protection approach can be best studied through participatory and creative methods. Our methodologies workshops are available online. We are growing the UCP Research Database with information on UCP research by academics and practitioners.

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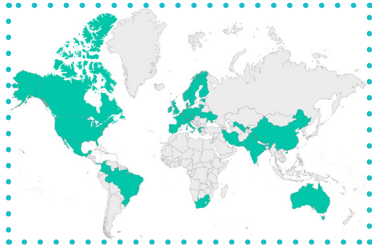
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PANEL DISCUSSION

The Social Responsibility of Science in the International Context. Polish Perspective

Dawid Kostecki
Director General of Polish National Agency for Academic Exchange

Dr Dawid Kostecki holds a PhD degree in law and a master's degree in history from the Catholic University of Lublin. He is a graduate of the Executive Master of Business Administration (EMBA), as well as Doctor of Business Administration (DBA) at Warsaw Management University. He is a member of the Young Scientists Council, an advisory body to the Minister of Education and Science. He is an experienced employee of public administration units at various levels. He is a member of the International Association for the Philosophy of Law and Social Philosophy (IVR), the Scientific Thomistic Society and the Department of Social and Economic Analysis of the Polish Academy of Sciences Foundation in Lublin. Dr. Dawid Kostecki has authored two monographs: Organizational culture of good governance in public administration units. A Handbook of Good Practices and The Philosophy of Law by Marian Ignacy Morawski for which he received the award named after Aniela hr. Potulicka for an outstanding achievement in the field of Christian humanism. He is the author of several articles relating to law and management in public administration. He has co-organized two editions of the Polish-American Congress in Lublin.

Renata Mieńkowska-Norkiene
University of Warsaw

Renata Mieńkowska-Norkiene is an associate professor of political science at the University of Warsaw. She is a professional with almost 20 years of experience in connecting conducting scientific research with teaching and popularizing science. Prof. Mieńkowska-Norkiene lectured at numerous universities abroad. She is a member of a network of the European Commission's experts - Team Europe. She is a Chairwoman of the Programme Council of the International Institute of Civil Society. Prof. Mieńkowska-Norkiene is a member of the Evaluation Team of NAWA Urgency Grants. She is an author of more than 70 scientific publications.
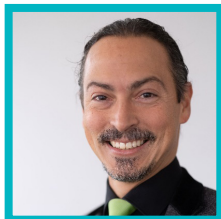
Rafael Popper
Łukasiewicz Research Network

Rafael Popper (PhD) is Director of the Łukasiewicz – Centre for Foresight and Internationalisation (CFI). Dr. Popper is also Scientific and Foresight Advisor at the Łukasiewicz Research Network (ŁRN) in Poland, Founder and Director of Futures Diamond Ltd in the United Kingdom, Director of Executive Education in Foresight at the Manchester Institute of Innovation Research (MIOIR) of the University of Manchester in the UK, and Adjunct Professor in Futures Studies, Foresight and Innovation Management at the Finland Futures Research Centre of the University of Turku in Finland. Dr. Popper has also been Principal Scientist in Business, Innovation and Foresight at VTT Technical Research Centre of Finland Ltd (2016-2021). Dr. Popper has 20+ years of experience as foresight and innovation policy consultant for several international organizations (e.g. European Commission, Economic Commission for Latin America and the Caribbean, United Nations Industrial Development Organization, World Bank), as well as for government and business organisations in Europe, Latin America, Africa, Asia and Australia

Moderated by:

Eliza Kania
Brunel University London

Eliza Kania works at Brunel University London and for Political Studies Review, one of the flagship journals of the Political Studies Association. She is a member of Brunel Public Policy unit, which specializes in utilising research to help inform policy-makers, legislators and regulators. She has over 10 years of experience in cooperation with local government units and NGOs in Poland and in other EU countries. She has a PhD in political science and is an author of "Prekariat i proces prekaryzacji pracy. Nowe kierunki zmian społeczno-gospodarczych w świecie". Her research areas cover the process precarisation of labour, and emancipatory social movements. She develops creative forms of research promotion and is passionate about visual communications and presenting and visualizing research data for dissemination.

PANEL DISCUSSION

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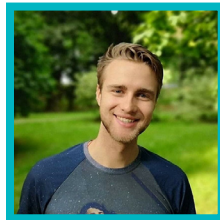

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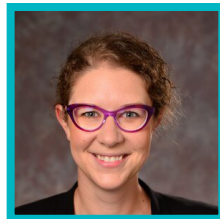

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