**Dear Participants,**

We are delighted to welcome you to Demystifying Machine learning workshop in Rostock November 5-6.

This is a great opportunity to change ideas, learn and network with leading population researchers. It is our wish to foster friendly, constructive and open discussion that benefits all participants. We also hope that this is chance to become familiar with Max Planck Institute of Demographic Science and the city of Rostock.

We would like to acknowledge that this workshop was made possible by funding for the MaxHel center.

This document contains information about the program, how to get here, where to stay and about Max Planck Institute of Demographic Science in general. Please feel free to email us [MLworkshop@demogr.mpg.de](mailto:MLworkshop@demogr.mpg.de) if relevant information remains missing or there are mistakes.

We look forward for your participants,

Angela Carolla, Aapo Hiilamo, Mikko Myrskylä

**Program**

Our program is provided below. It consists of two keynote sessions, seven contribution sessions, one tutorial and poster session. This is to say that our program is tightly packed. We therefore hope to follow it punctually.

Please note that coffee and lunch are provided for all participants.

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| Day 1 - 05/11/2024 | | Day 2 - 06/11/2024 | |
|  |  |  |  |
| 09:00 - 09:10 | Opening | 9:20 - 10:20 | Computer Tutorial |
| 9:10 - 10:30 | Session 1: Fertility | 10:20 - 10:40 | Coffee |
| 10:30 - 10:50 | Coffee | 10:40 - 12:00 | Session 5: Causal Inference |
| 10:50 - 11:50 | Keynote: Ian Lundberg | 12:00 - 13:00 | Lunch |
| 11:50 - 13:00 | Lunch | 13:00 - 14:00 | Session 6: Predictions health |
| 13:00 - 14:00 | Session 2: Mortality | 14:00 - 14:20 | Coffee |
| 14:00 - 15:30 | Coffee + Poster | 14:20 - 15:20 | Session 7: Understanding complexity |
| 15:30 - 16:50 | Session 3: Migration and SES | 15:20 - 15:40 | Coffee |
| 16:50 - 17:00 | Coffee | 15:40 - 16:50 | Panel discussion |
| 17:00 - 18:00 | Session 4: Methods | 16:50 - 17:00 | Coffee |
| 19:00+ | Social dinner | 17:00 - 18:00 | Keynote: Jennie Brand |

**Keynote speakers**

Ian Lundberg Assistant Professor, Department of Sociology, UCLA. Lundberg studies topics in stratification and inequality and strive to produce substantive findings that are conceptually precise and which rely on credible assumptions. These principles often lead him to computational and machine learning methods and the development of new approaches. Lundberg will provide keynote titled XXX where he…

Jennie E. Brand is Professor of Sociology and Professor (by courtesy) of Statistics and Data Science. She is Co-Director of the Center for Social Statistics (CSS) in UCLA. Prof. Brand studies social stratification and inequality and its implications for various outcomes that indicate life chances. Prof. Brand will provide keynote titled XXX where she…

**Sessions**

The organization committee have allocated the contributions to seven thematic sessions. Each session consists of 3-4 contributions and are moderated by chair from MPIDR. We ask presenters to stick with the 15 min presentation limit and leave time for discussion after their presentations. We provide below the titles of the presentations.

**Poster presentations**

We are delighted to have xx poster presentations. In the first day we have allocated 1.5 hours for the poster presentations which are allocated in all floors of the MPIDR building. We ask poster presenters to bring their poster either before the opening of during the first coffee break. Below we provide the poste presentations. Please note that the titles here are subject to change.

|  |  |
| --- | --- |
| Elizaveta Sivak: Understanding fertility by trying to predict it | Third floor east wing |
| Leonie Fohler: Transferability of polygenic risk scores depending on demography and dominance coefficients | Third floor east wing |
| Nicholas Irons: \*No title\* | Third floor east wing |
| Christina Pao: Categorizing and Analyzing Pluralistic Social Identities: Two Applications of Machine Learning Methods for Demography |  |
| Thiago Zordan Malaguth: Assigning Nationality to Names Using Machine Learning to Differentiate Emigation from Return Migration of Scholar |  |
| Simon Ruhnke: Predicting migration aspirations in Lebanon and Turkey |  |
| Linda Vecgaile: Decoding Future Paths: Utilizing Transformers to Predict Life Course Sequences |  |
| Lousia Holmes: \*No title\* 2 contributions |  |
| Tathgata Bhattacharjee: Leveraging Machine Learning for Enhanced Population Health Monitoring in LMICs: Linking Demographic Surveillance and Clinic Records |  |
| Özer Bakar: Improving GAPC Models’ Accuracy with Automated Machine Learning Procedure for Forecasting Old-Age Mortality |  |
| Obasanjo Bolarinwa: Leveraging Machine Learning for Understanding Fertility Determinants among Women with  Disabilities in Sub-Saharan Africa: Insights from DHS Datasets |  |
| Yanji Du: Evaluation of Neural Network-based Heterogeneous Treatment Effect Estimation |  |
| Jordi Guma: Uncovering the heterogeneity of the effects of adult children's unemployment on their parents' mental health in Europe. |  |
| Malin Mahlbacher: The Role of Firms for Children's Development |  |
| Aoudou Njingouo: Profiling Child Mortality under Five in Cameroon: A Machine Learning Approach |  |
| Sulaimon Rasheed: Harnessing Machine Learning to Predict the Help-Seeking Behaviour of Victims of Intimate Partner Violence in Rural Areas of Nigeria |  |
| Jamilu Sani: Machine Learning Algorithms for Predicting Optimal Antenatal Care Visits among Fertile Women in Nigeria |  |
| Sara Syrgley: Developing a Machine Learning Model to Better Predict the Undercount of Young Children in the Census |  |
| Xu Zong: Can long-term care insurance promote older cognitive function in China? Evidence from double machine learning |  |
| Josephine Jackish: Interventions on adolescent behaviours and adverse family environments to mitigate socioeconomic inequalities in accelerated ageing: a Finnish cohort study / Structural resilience factors after childhood adversity (270 words) |  |
| Anne Kristine Christensen: Machine learning and evaluation of obesity causes ​ in children and adolescents |  |

**Tutorial**

SOME INFO about the tutorial here? We ask you to bring your laptops to the toturial. The totorial will use XX software which can be installed freely from…

**How to get here**

Rostock can be reached by train or bus from the international airports of Berlin (BER) and Hamburg (HAM). Information about train schedules and tickets can be found from DB website.

There are two things we would like to highlight here. The first ist hat the train schedules are unfortantely often unreliable. We advice to take earlier train always if possible. The second ist hat if you are using regional trains and plan to travel more in Germany, Deutchland ticket may be the most affordable option for you.

In Rostock MPIDR can be easily reached via foot.

**Where to stay**

There are plenty options for accommodation in Rostock.

We neverthtless recommend the following hotels, all of which are within walking distance from the institute

- [Motel One Rostock](https://www.motel-one.com/de/hotels/rostock/hotel-rostock/) in the city center, is only a 20 minutes walk from the Institute.  
- [B&B HOTEL Rostock City-West](https://www.hotel-bb.com/de/hotel/rostock-city-west) right in front of the Institute.  
- [elaya hotel Rostock](https://www.elaya-hotels.com/rostock/) also in front of the Institute.

**Max Planck Institute of Demographic Research**

The MPIDR is one of the largest demographic research bodies in Europe, and is a worldwide leader in the study of populations. The Institute is part of the Max Planck Society, the internationally renowned German research organization.

the Max Planck Institute for Demographic Research (MPIDR) in Rostock investigates the structure and dynamics of populations. The Institute’s researchers explore issues of political relevance, such as demographic change, aging, fertility, and the redistribution of work over the life course, as well as digitization and the use of new data sources for the estimation of migration flows.

Directors of the Institute are Mikko Myrskylä and Emilio Zagheni. The Institute is based in Rostock, a vibrant city with a rich maritime history located near the Baltic Sea coast.

Please follow our website and social media account for future opportunities.