

Third International Workshop on Experimental Economics and Machine Learning (EEML 2014)

In conjunction with ECML&PKDD 2014 (September 15-19, Nancy, France)

It is not only the global financial crisis of the recent years [G. P. Maxton, The end of progress : how modern economics has failed us. John Wiley & Sons, 2011.], which made economists reconsider the path economics as a discipline should take. Since decades, it became obvious that classical theories fail in real world [D. Ariely, Predictably Irrational. Harper, 2009.]. Paul Krugman described the current situation in economics as: "... the central cause of the profession's failure was the desire for an all-encompassing, intellectually elegant approach that also gave economists a chance to show off their mathematical prowess. Unfortunately, this romanticized and sanitized vision of the economics led most economists to ignore all the things that can go wrong. They turned a blind eye to the limitations of human rationality".

Experimental Economics gained its importance as a promising solution of this problem. Human being a subject of research has shifted economists' point of view closer to the psychologists' one: people are no more considered to be rational payoff maximizers. On the other side, growing size and complexity of the data makes the application of state-of-the-art data science essential.

In Experimental Economics, laboratory and field experiments are carried out using human subjects in order to improve theoretical knowledge about human behavior during interaction. Although financial rewards restrict subjects' preferences in the experiments, the exclusive application of analytical game theory is not enough to explain the collected data. It calls for the development and evaluation of more sophisticated models. Additionally, the research area includes experiments, where human subjects are involved into interaction with automated agents.

The more data is used for evaluation, the more statistical significance can be achieved. Since large amounts of behavioral data are required to scan for regularities, along with automated agents needed to simulate and intervene in human interactions, Machine Learning is the tool of choice for research in Experimental Economics. This workshop is aimed at bringing together researchers from both Data Analysis and Economics in order to achieve mutually-beneficial results.

As a part of a renowned international conference focusing on different branches of Machine Learning, this full-day workshop intends to bridge the gap between two scientific communities: Experimental Economics and AI & Data Mining.

The first workshop – [EEML 2012](#) – has been successfully accomplished at ICFCFA 2012. The second workshop – [EEML 2013](#) – was held alongside the IEEE ICDM 2013. We hope that this year we can continue our work and encourage even more interaction among the researchers from these two fields.

We expect to allow an individual author to have up to three accepted papers covered by the workshop's registration fee. Papers over 12 pages will not be allowed.

Website: <http://eeml.hse.ru/2014/>

Subject coverage:

- Economic Applications of Machine Learning
- Economic Innovations and Data Mining
- Experimental Economics and Complex Networks
- Econometrics VS Machine Learning & Data Mining
- Human Behavior Modeling and Game Theory
- Innovative applications of Concept Lattices in Economics & Data Mining
- Interdisciplinary Data Science

- Knowledge Discovery in Economics Domain
- Natural Language Processing in Economics Domain
- Machine Learning for Social Sciences
- Preference Mining and Learning
- New Modeling Languages for Economics (Bayes and Markov Nets, Petri Nets etc.)
- Ontologies for Economics
- Real Data Mining Projects

Workshop co-chairs

1. Rustam Tagiew, Alumni of [TU Bergakademie Freiberg](#), Germany
1. Dmitry Ignatov, [National Research University Higher School of Economics](#), Russia
2. Boris Gutkin, Group for Neural Theory, [Ecole Normale Supérieure](#), France
3. Fadi Amroush, [Granada Lab of Behavioral Economics \(GLOBE\)](#), Spain

Tentative Program Committee (only PhDs, to be extended and confirmed)

Aleksandr Karpov, National Research University Higher School of Economics, Russia
 Alexander Panchenko, Université catholique de Louvain, Belgium
 Amedeo Napoli, Loria, Nancy, France
 Antonio Gabriel López Herrera, Department of Computer Science and Artificial Intelligence, Spain
 Boris Galitsky, e-Bay Inc, USA
 Boris Mirkin, National Research University Higher School of Economics, Russia
 Daniel Karabekyan, National Research University Higher School of Economics, Russia
 Guido Dedene, Katholieke Universiteit Leuven, Belgium
 Heather D. Pfeiffer, Akamai Physics Inc., USA
 Henri I. Penikas, National Research University Higher School of Economics, Russia
 Irina Efimenko, National Research University Higher School of Economics, Russia
 Jonas Poelmans, Katholieke Universiteit, Belgium
 Leonid Zhukov, National Research University Higher School of Economics, Russia
 Malay Bhattacharyya, Indian Statistical Institute, Kolkata, India
 Mehdi Kaytoue, INSA, Lyon, France
 Mikhail Khachay, Institute of Mathematics and Mechanics, Ural Branch of RAS, Ekaterinburg, Russia
 Mykola Pechenizkiy, Eindhoven Technical University, The Netherlands
 Natalia Konstantinova, University of Wolverhampton, UK
 Nicola Vitucci, Politecnico di Milano, Italy
 Nikolaos Georgantzis, University of Granada & Universitat Jaume I, Spain
 Olga Barinova, Moscow State University, Russia
 Paul Elzinga, Katholieke Universiteit Leuven, Belgium and Amsterdam-Amstelland police, The Netherlands
 Pouya Dehghani Tafti, Alumni of EPFL, Switzerland
 Rostislav Yavorskiy, Higher School of Economics, Russia
 Sergei Kuznetsov, National Research University Higher School of Economics, Russia
 Sergei Nikolenko, National Research University Higher School of Economics, Russia

Simon Andrews, Sheffield Hallam University, UK
Simon Polovina, Sheffield Hallam University, UK
StijnViaene, Vlerick Leuven Management School, Katholieke Universiteit Leuven, Belgium
Stephan Alexander Rompf, Alumni of University of Mannheim, Germany
Sushmita Mitra, Indian Statistical Institute, Kolkata, India
Tania Garfias Macedo, Alumni of University of Goettingen, Germany
T.L. Hoang, Eindhoven Technical University, The Netherlands
Vladimir Khoroshevsky, Computing Centre of Russian Academy of Sciences, Russia
Vlado Menkovski, Eindhoven Technical University, The Netherlands
Xenia Naidenova, Military Medical Academy, St. Petersburg, Russia

Important dates

Friday, June 13, 2014: Workshop abstract submission deadline
Friday, June 20, 2014: Workshop paper submission
Friday, July 11, 2014: Workshop paper acceptance notification
Friday July 25, 2014: Workshop paper camera-ready
September 15 or 19, 2014: Day of the workshop

Registration

All attendees to the workshop are required to register as participants of ECML&PKDD 2014. Information regarding registration will soon be made available by the conference organization on the conference site: <http://www.ecmlpkdd2014.org/>.

Submissions & Proceedings (to be extended)

We expect to allow an individual author to have up to three accepted papers covered by the workshop's registration fee. Papers over 12 pages will not be allowed. The resulting submissions will be thoroughly reviewed by our carefully selected program committee in order to filter out papers of low quality. All accepted papers will be included in the workshop's proceedings published either by CEUR-Ws or CCIS series by Springer depending on the number and quality of the submissions. In the first case, in addition to CEUR electronic proceedings, its printed version can also be published by the National Research University "Higher School of Economics".

Once the decision on paper acceptance has been made, the authors will be notified that camera-ready versions of their papers should be prepared and submitted through the EasyChair submission system. Due to the strict production schedule of proceedings, these deadlines cannot be postponed.

EEML 2012 Proceedings can be found by the following link: <http://ceur-ws.org/Vol-870/>.
EEML 2013 delivered talks are listed on: <http://eeml.hse.ru/2013/>
and the proceedings can be downloaded from IEEE Xplore as a part of [ICDMW 2013](#).