



# **Proceedings of the International ACM Recommender Systems Challenge 2015**

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## Preface

This volume contains the papers presented at the ACM RecSys Challenge 2015 workshop held on September 16, 2015, in Vienna, Austria. The challenge offered participants the opportunity to work on a large-scale e-commerce dataset from a big retailer in Europe. Participants tackled the problem of predicting what items a user intends to purchase, if any, given a click sequence performed during an activity session on the e-commerce website. The challenge was launched on November 15, 2014, and ran for seven months, attracting 850 teams from 49 countries which submitted a total of 5,437 solutions. The winners were determined based on the final ranking of the scores at the end of the challenge. However, in order to receive the monetary prize, the participants were required to submit, and have accepted, a paper detailing the applied algorithms, and attend the challenge's workshop. There were 22 submissions, and each submission was reviewed by at least two program committee members. The following table contains a summary of the 12 accepted papers and the corresponding score and rank in the final leaderboard.

Team's Affiliation	Score	Rank	Paper's Title
Yandex Data Factory, Russia	63102	1	RecSys Challenge 2015: ensemble learning with categorical features
NetEase Youdao, China & Tsinghua University, China	61075	3	E-Commerce Item Recommendation Based on Field-aware Factorization Machine
University of Toronto, Canada	60265	4	Two-Stage Approach to Item Recommendation from User Sessions
MTA SZTAKI & Technical University Budapest, Hungary	59845	5	Solving RecSys Challenge 2015 by Linear Models, Gradient Boosted Trees and Metric Optimization
NTNU & Telenor Research, Norway	56944	6	Probability-based Approach for Predicting E-commerce Consumer Behaviour Using Sparse Session Data
Sharif University, Tehran, & RMIT University, Australia	55592	7	Purchase Prediction and Item Suggestion based on HTTP sessions in absence of User Information
Bogazici University & Bahcesehir niversity, Turkey	54579	8	An ensemble approach for multi-label classification of item click sequences
POSTECH, South Korea	54403	10	Predicting User Purchase in E-commerce by Comprehensive Feature Engineering and Decision Boundary Focused Under-Sampling
Soochow University, China	53341	13	Linear and Non-Linear Models for Purchase Prediction
BGU, Israel	51996	14	In-House Solution for the RecSys Challenge 2015
IUPUI, USA	49517	16	Multi-Perspective Modeling for Click Event Prediction
IHPC A-STAR, Singapore & CMU, USA	49392	17	Neural Modeling of Buying Behaviour for E-Commerce from Clicking Patterns

During the workshop, some of the papers were presented as oral presentations and others as posters. The first three teams received cash prizes totaling 5,000 euros which were awarded at the RecSys 2015 conference, along with the awards for the best paper and best poster. YOOCHOOSE, a recommender systems provider, organized and funded the challenge.

We would like to express our gratitude to the participants, program committee members, and to YOOCHOOSE for sponsoring the challenge. Special thanks go to Dr. Alan Said who contributed

his expertise and priceless advice to the organizing committee throughout the challenge; all those involved in the challenge benefited from his rich experience.

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