



KDD 2015 Program Chair Report

Business Meeting

Thorsten Joachims & Geoffrey Webb

21st ACM SIGKDD Conference on Knowledge Discovery and Data Mining
August 10-13, 2015, Sydney



KDD 2015 Program

- **Largest ever KDD program**

- 4 keynote addresses
- 11 industry & govt. invited talks
- 228 paper talks and posters
 - 160 research and 68 industry & govt.
- 15 workshops
- 12 tutorials
- KDD Cup competition
- 2 panels

I&G Track Chairs

- Dragos Margineantu
- Graham Williams

I&G Invited Talk Chairs

- Rajesh Parekh
- Usama Fayyad

Workshop Chairs

- Johannes Fuernkranz
- Tina Eliassi-Rad

Tutorial Chairs

- Jian Pei
- Zhi-Hua Zhou

Panel Chairs

- Hugh Durrant-Whyte
- Katharina Morik

KDD Cup Chairs

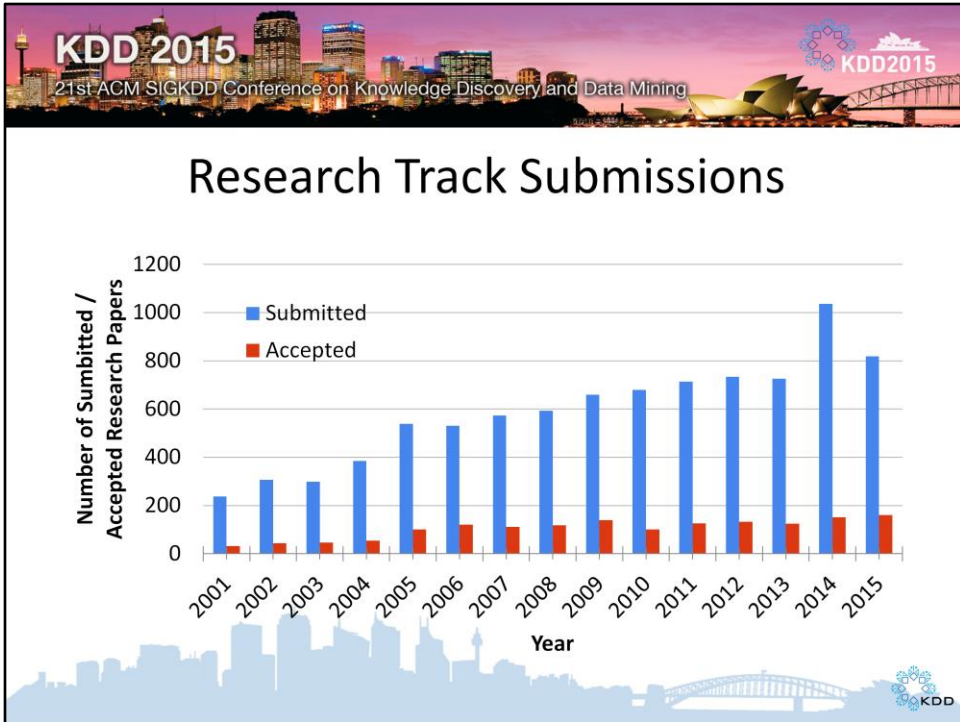
- Jie Tang
- Ron Bekkerman



Research Track Reviewing

- 819 Research Track submissions
 - 160 accepted → acceptance rate of 19.5%.
- Review process
 - Described in booklet message and proceedings
 - new: Author Feedback
 - redesigned Subject Areas
 - Enlarged PC and Senior PC (595 PC and 68 SPC)
 - most papers got 4 reviews
 - secondary SPC helped with difficult decisions
 - Provided additional decision support analytics to SPC

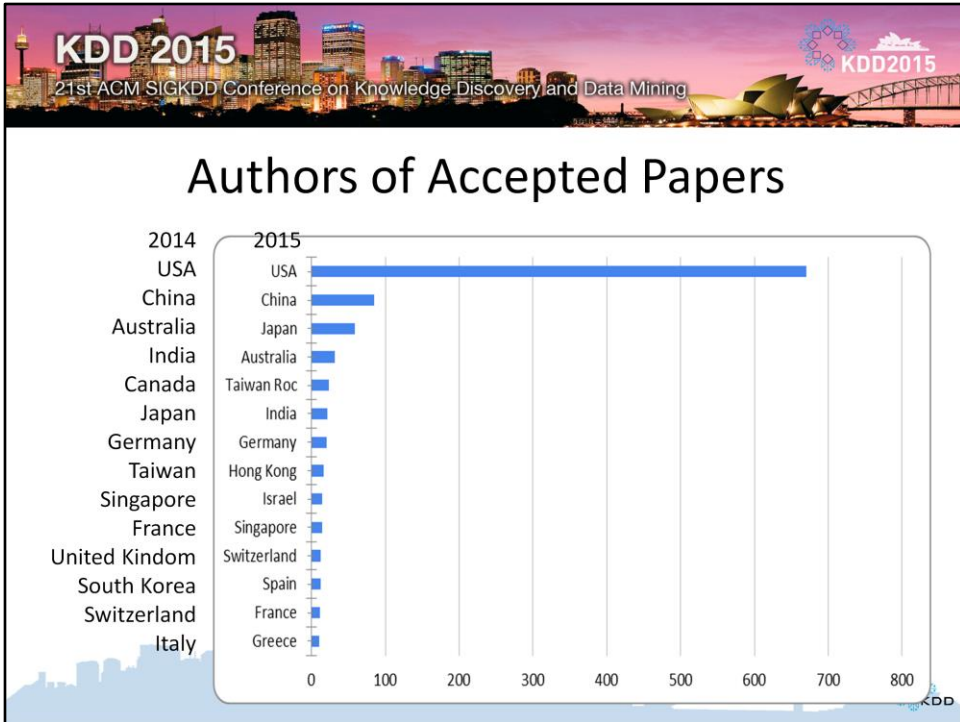





Healthy submission numbers despite remote location.



Acceptance rate is somewhere in the middle of historic rates.

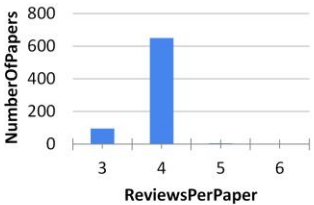


Note: 2014 is using authors of submitted papers for ranking, not authors of accepted papers as in 2015.



Program Committee

- Growing the PC and SPC
 - 68 Senior PC Members
 - 46 in 2014
 - 595 PC Members
 - 340 in 2014
- Reviews per paper



ReviewsPerPaper	NumberOfPapers
3	~100
4	~650
5	0
6	0
- Reasons
 - Contingency for growth
 - No overworked PC
 - Mitigate variability of review process
- Reviewing load
 - 4.9 (max 7) Reviews per PC
 - 10.9 Meta-Reviews per SPC

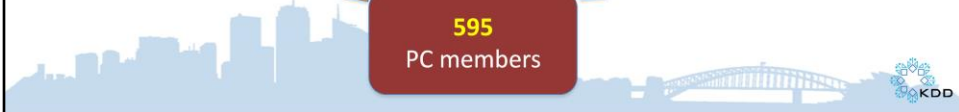
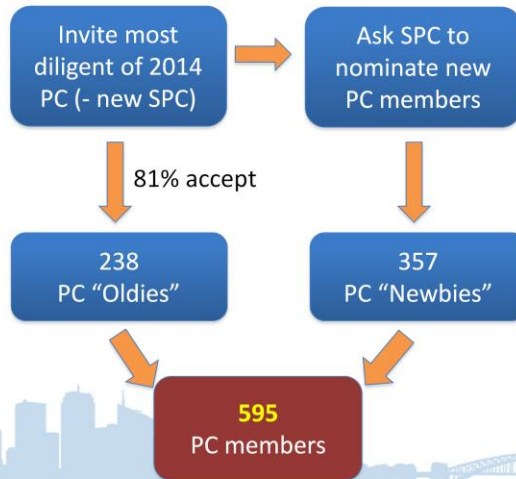
Cojecture: Overworked reviewers are unhappy reviewers that do a half-assed job.
 → Therefore, we enlarged PC and reduced load per PC and SPC member

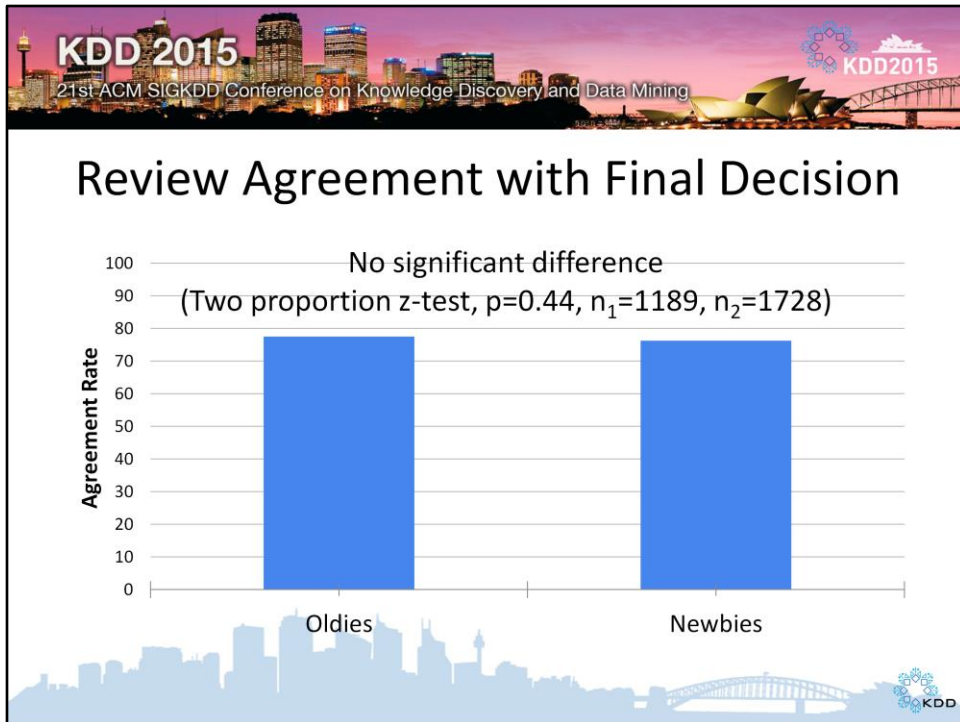
Goal: Reduce variability of reviewing process and make more reliable acceptance decisions
 → Therefore, we got 4 reviews for most papers to reduce variability due to reviewer selection (compared to having 3 reviews in the past).

Two questions:

- How did we recruit the extra reviewers?
- Were the reviews by these extra reviewers of comparable quality?

PC Selection Process





No indications that the newbies are more noisy in their assessment than oldies. But note dependence of decision on reviews.

Pro: Fourth review has likely reduced variability of the reviewing process.

Con: Fourth review PC puts increased strain on the community.



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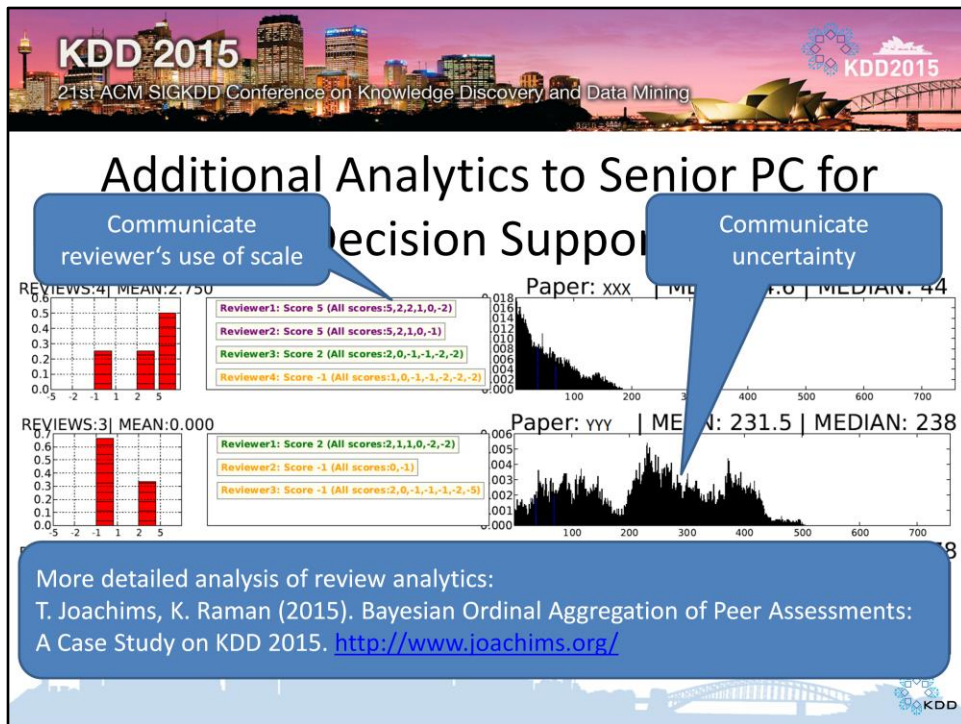
KDD2015

Senior PC

Alex Jaimes	Dimitrios	Jie Tang	Philip S. Yu	Tanya Berger-Wolf
Andrew Tomkins	Gunopulos	Jimeng Sun	Prem Melville	Thomas Seidl
Arindam Banerjee	Eamonn Keogh	Johannes	Qiang Yang	Thorsten Joachims
Aristides Gionis	Edo Liberty	Fuernkranz	Ravi Kumar	Tie-Yan Liu
Arno Siebes	Evgeniy Gabrilovich	Jure Leskovec	Rayid Ghani	Tijl de Bie
Bart Goethals	Francesco Bonchi	Katharina Morik	S.V.N.	Tina Eliassi-Rad
Byron Wallace	George Karypis	Kilian Weinberger	Vishwanathan	Vishwanathan S. V.
Charu C. Aggarwal	Hong Cheng	Kristian Kersting	Saharon Rosset	N.
Chih-Jen Lin	Hui Xiong	Martin Ester	Sanjay Chawla	W. Bruce Croft
Chris Ding	Ian Davidson	Naoki Abe	Shou-de Lin	Wei Wang
Christos Faloutsos	Inderjit Dhillon	Naren	Siegfried Nijssen	Wray Buntine
Cristian Danescu-Niculescu-Mizil	James Bailey	Ramakrishnan	Sofus Macskassy	Xifeng Yan
Deepak Agarwal	Jeffrey Yu	Osmar Zaiane	Srini Parthasarathy	Yehuda Koren
Diane Cook	Jian Pei	Paul Bradley	Stefan Wrobel	Yisong Yue
	Jiawei Han	Paul Bennett	Suchi Saria	Zhi-Hua Zhou
		Peter Flach		



Thank you!!!



We wanted to provide Senior PC members with additional relevant information to improve their ability to make informed decisions. So, we provided decision support analytics that go beyond what CMT provides. Here are the reports that Senior PC received for three example paper.

Goal 1: Communicate the reviewer's use of the scale (from "Strong Accept" to "Strong Reject").

→ We showed how each reviewer rated all the other papers assigned to him/her. Note how Reviewer 1 and Reviewer 4 use very different scales, but both rank the paper highly.

Goal 2: Communicate the uncertainty inherent in the reviews due to reviewer selection.

→ We used a Bayesian rank aggregation method to provide the marginal distributions of where a paper ranks among all papers. Note how spread-out the distribution of the second paper is, hopefully encouraging the Senior PC member to take additional actions (e.g. read paper carefully, resolve disagreement through discussion, get additional review).

An analysis of this for KDD 2015 can be found in the given paper.