

# DOUBLE BLIND REVIEW

SURESH VENKATASUBRAMANIAN

# MY CREDENTIALS

- PC co-chair of ALENEX 2018 (double blind (DB) review)
- Founder of FAccT (ACM Conference on Fairness, Accountability and Transparency) (DB review)
- Reviewer and Area Chair for ML/data mining conferences (all DB): NeurIPS, ICML, KDD, .....
- Used many DB-friendly conference software systems (easychair, CMT (microsoft), hotCRP, ...) as chair, reviewer, author, ....
- Have written a lot about DB review ([geomblog.blogspot.com](http://geomblog.blogspot.com))

# THE CASE FOR DB REVIEW

IT IS MORE INCLUSIVE

## **Orchestrating Impartiality: The Impact of "Blind" Auditions on Female Musicians**

AMERICAN ECONOMIC REVIEW  
VOL. 90, NO. 4, SEPTEMBER 2000  
(pp. 715-741)

## **Reviewer bias in single- versus double-blind peer review**

 Andrew Tomkins, Min Zhang, and William D. Heavlin

PNAS November 28, 2017 114 (48) 12708-12713; first published November 14, 2017

<https://doi.org/10.1073/pnas.1707323114>

scored by two single-blind and two double-blind reviewers. Our analysis shows that single-blind reviewing confers a significant advantage to papers with famous authors and authors from high-prestige institutions.

# REASONS

- Reviews are more inclusive (on gender as well as institutional status) [TZH17 PNAS, GR97 NBER]
- Reviewers more likely to offer honest reviews (critical or otherwise) [Blank1991 AER]
- Reviewers find it difficult in single-blind review to free themselves from gender and institutional bias. [WW97 Nature]
- Review processes are very noisy (NeurIPS 2014) and factors other than paper merit sway decisions on the boundary.

# THE MECHANICS OF DB REVIEW

# HOW WE DO IT

- There are many tools at our disposal, including
  - pre-registration of reviewers and conflicts
  - conflicts declared by domains
  - software assistance for DB review
  - limitations on external reviewing (mediated by PC chairs)
  - detailed instructions to authors on how to prepare submission
  - options for arXiving (also see [OpenReview.net](https://OpenReview.net))

# HOW WE DO IT

- There are many tools at our disposal, including
  - pre-registration of reviewers and
  - conflicts declaration
  - scoring
  - limited communication (mediated by PC chairs)
  - detailed instructions to authors on how to prepare submission
  - options for arXiving (also see [OpenReview.net](https://OpenReview.net))

THERE ARE NO REAL LOGISTICAL HURDLES TO IMPLEMENTING DOUBLE BLIND REVIEW, MERELY CHOICES OF HOW TO DO IT

# THE CASE AGAINST DB REVIEW

# TYPICAL OBJECTIONS AND RESPONSES

- *"We can guess author names anyway"*
  - This is not true (74-90% of reviewers fail to guess [GB+17])
  - Also, goal of DB review is to remove implicit bias at **initial** stages, not make it cryptographically secure.
- *"We don't have problems with bias in <our community>"*
  - gender and institutional bias evidence is strong and consistent across the spectrum of disciplines (within CS and outside)
- *We want people to put stuff on arXiv: this slows research*
  - No evidence of this (and some evidence of the opposite, and procedures to mitigate this)
- *If we don't have author information, we can't detect collusion*
  - Collusion is a real problem in some communities, but exists independently of double blind review.

# TYPICAL OBJECTIONS AND RESPONSES

- We need to know the author names because ....
  - *it helps determine whether proofs are correct.*
  - *it helps determine whether work is incremental*
  - *it helps us improve diversity in the field by encouraging under-represented groups.*

# TYPICAL OBJECTIONS AND RESPONSES

- We need to know the author names because ...
  - *it helps determine whether pro*
  - *it helps determine*
  - *it*
  - *rep*
- *discouraging under-*

ALL OF THESE ARE "AUTHOR NAME IS A PROXY FOR SOMETHING WE REALLY CARE ABOUT". FOCUS ON THAT.

# SUMMARY

- There are many reasons (backed by research) that double blind review can help alleviate bias in paper acceptance due to gender, institutional affiliation and demographics
- There are many mechanisms available to implement it, both in terms of procedure and tools. There's plentiful experience from other sub communities within computer science.
- Most of the standard objections to double blind review are really fears, and have not visibly come to pass. Some objections are of concern, but apply equally to current systems, and should be addressed directly.