

# How to be a good reviewer ... as part of The System

CVPR'20 tutorial on “How to write a good review?”

Vittorio Ferrari - Google Research

[images from The Matrix movie copyright of Warner Bros studios]

# The System at ECCV 2018



# Swallowed by The System: the PCs



Vitto



Cristian

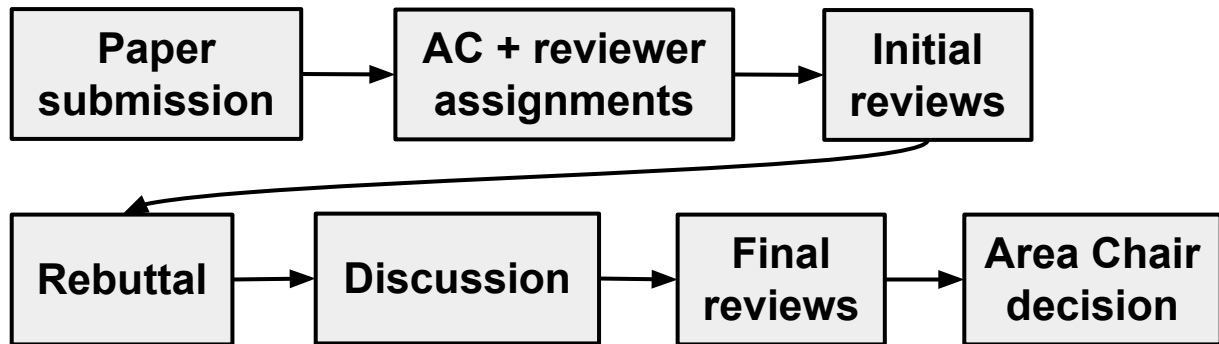


Martial

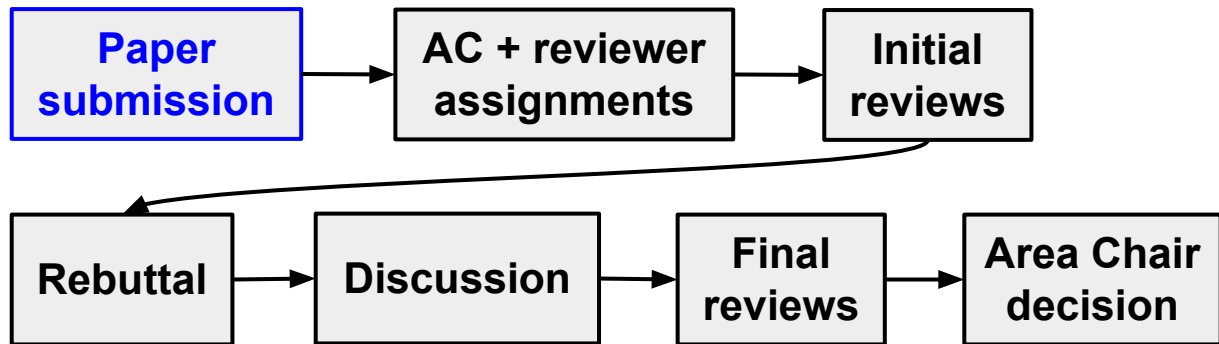


Yair

# Inside The System



# Inside The System

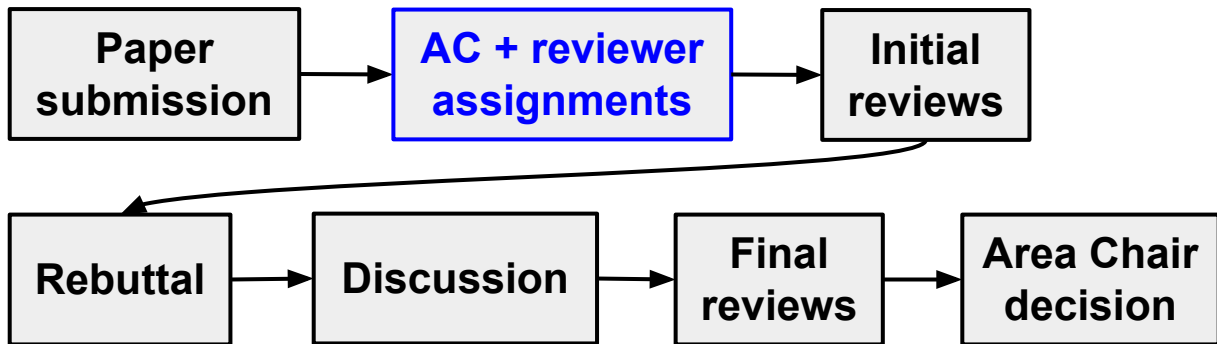


- Everybody knows this one well ;-)
- 2439 valid submissions
- +56% growth over ECCV 2016



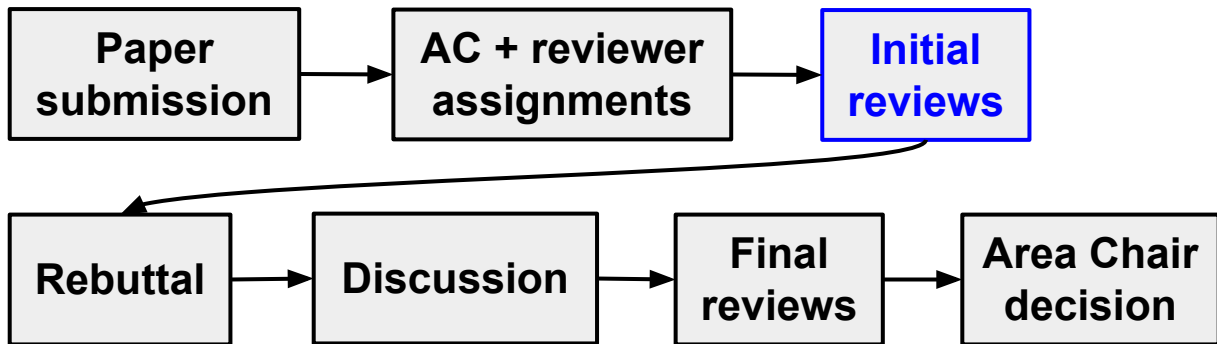


# Inside The System



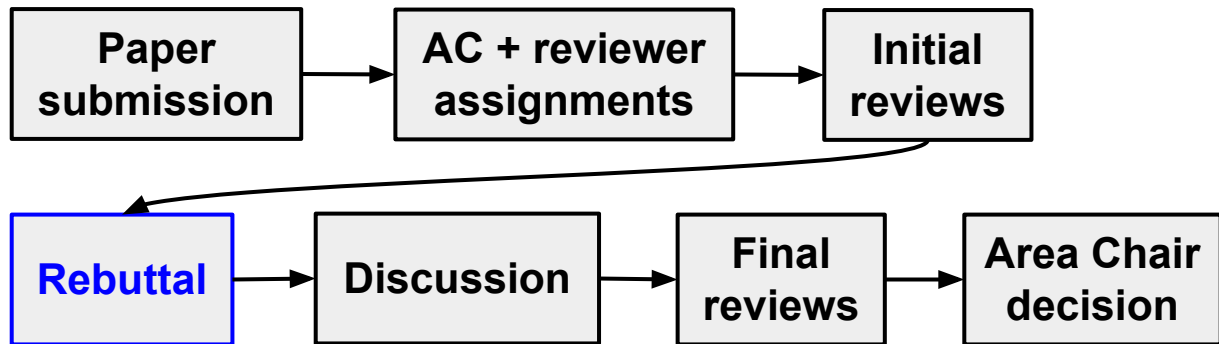
- PCs assigned papers to ACs, using TPMS affinity scores + OpenReview data
- ACs suggested 7 reviewers per paper on CMT3 (aided by TPMS scores)
- PC generated final assignment of 3 reviewers per paper through OpenReview to account for refined conflicts
- It's BIG: 126 ACs, 1199 active reviewers, 7300 reviews assigned

# Inside The System



- No more than 8 papers were assigned to a reviewer  
→ same load as ECCV 2016 despite increase in submitted papers.  
(improvement over max=10 for CVPR 2018)
- Reviewers had 5 weeks to provide initial reviews

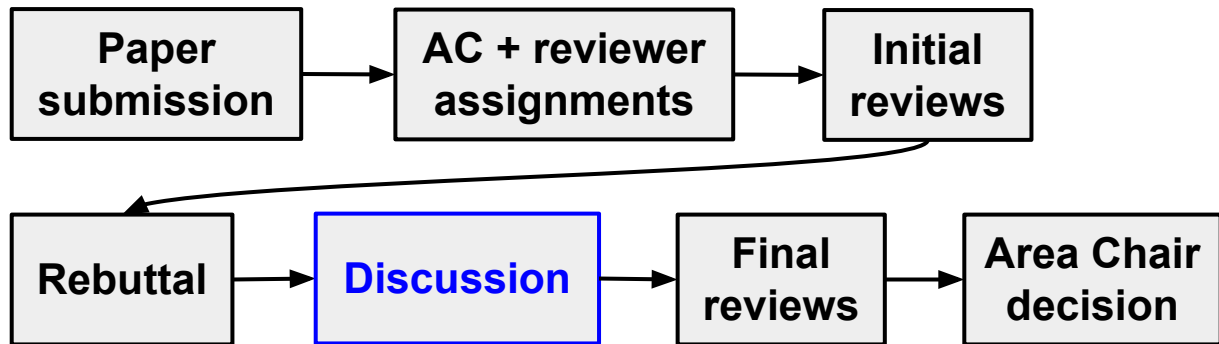
# Inside The System



- Reviews sent as initially produced by reviewers (**no discussion in-between**)
- 7 days for rebuttal
- two-page PDF document, in conference format

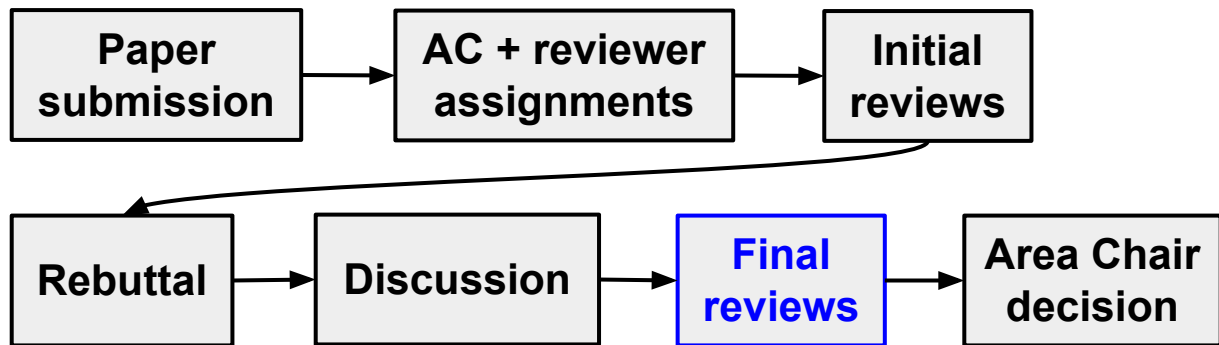


# Inside The System



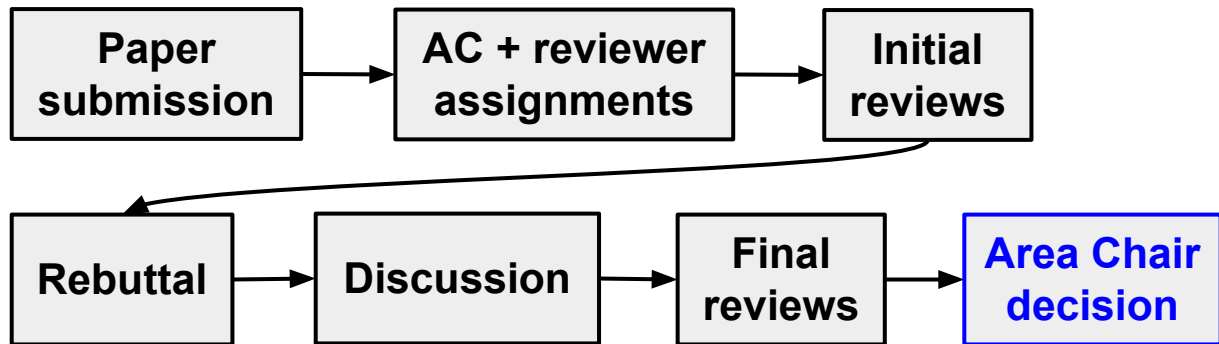
- Reviewers discuss among themselves
- Try to resolve inconsistencies and move towards a consensus
- Greatly facilitates the Area Chair's job
- Warning: a lot can happen in this phase, spiraling effects

# Inside The System



- Reviewers update their review score and enter reasons
- Rebuttals do matter: the reviewers often change their rating (up *and* down ;-)
- Score and text of final review is by far the most important factor in final decision. ACs power is mostly on borderline cases.

# Inside The System



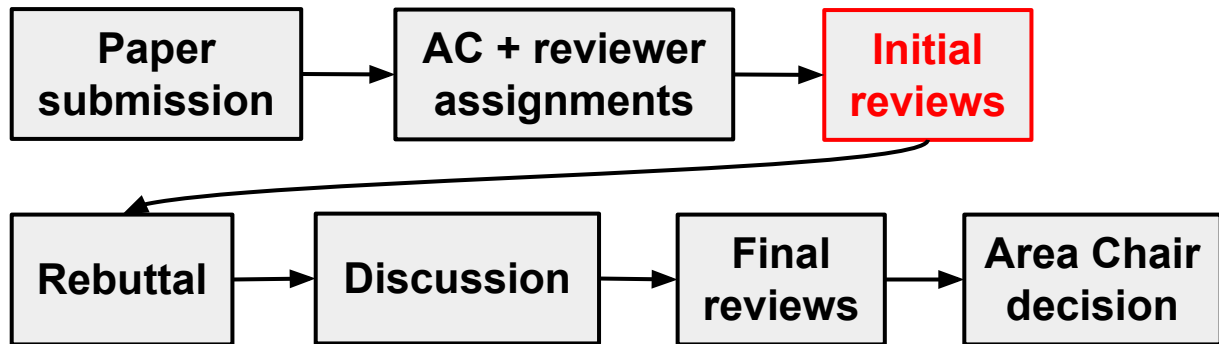
- Online process, no live meeting
- Primary AC enters accept/reject decision, then validated by a secondary AC
- ACs need PC approval for overruling reviewer consensus
- The two ACs also recommended orals, then final selection by PCs
- PCs only involved in decision for <10 papers where ACs could not agree
- 776 accepted papers (31.8%) - slightly higher than usual (no influencing by PCs)



# Breaking The System



# Breaking The System



- Generally unresponsive
- Register with an email address they do not read
- Refuse to do all their assigned reviews ... and tell us very late
- Late with reviews ... or just skip them altogether
- It can be hard to get some reviewers to do their job

# We missed 700 reviews at deadline time (10%)

Time to panic about unresponsive reviewers: Action plan.

**Martial Hebert** <mhebert@andrew.cmu.edu>

Tue

to pcs@eccv2018.org ▾

Hello,

Hope all is well.

I don't think I'll be able to review this in time as I'm currently busy with the NIPS deadline.

Best,

**Many people refused to review to due NIPS submission deadline... a mutiny :-(  
(yet not accounting for main mass of missing reviews)**

# Big effort - time to really fight!

- Chase after late reviews
- Reassign reviewers for hundreds of papers

Thanks to the dozens of emergency reviewers that saved the day!

Released 4 days later than planned  
(even after one week buffer we planned)



# ... some authors do not mind the delay

Dear authors,

We still have a significant number of missing reviews at this time, preventing us from releasing the reviews and starting the rebuttal period. The ACs and the PCs are making heroic effort to chase the remaining missing reviews and we will be able to release the reviews to you in a few days. The rebuttal will still be kept at one week after releasing the reviews, as advertised.

The PCs

Dear Martial,

Which conference is this one...

Thanks...



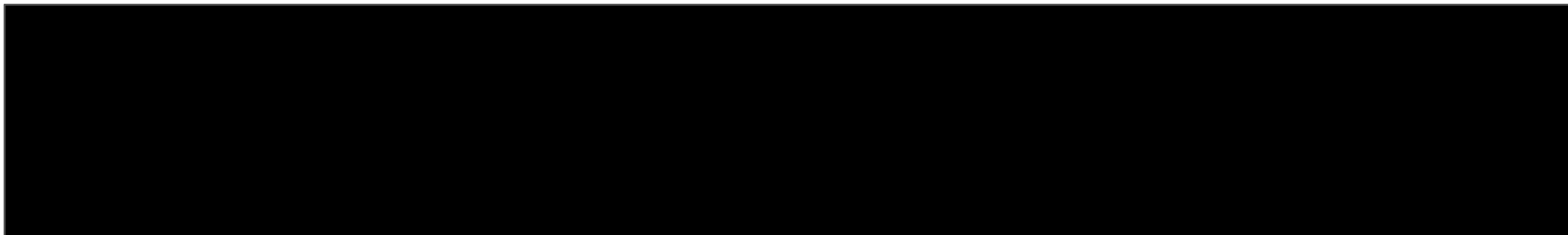
# One reviewer intentionally deleted all his work

Dear [REDACTED]

You have requested to delete [REDACTED]

In compliance with Microsoft privacy policy, the following assignments associated with this account in European Conference on Computer Vision 2018 will be removed (papers will not be deleted).

- Review Assignment:



Thanks,  
CMT Support

**Martial Hebert** <mhebert@andrew.cmu.edu>

to pcs@eccv2018.org ▼

Am I the only one finding this unbelievable?

-----M

**Cristian Sminchisescu** <cristian.sminchisescu@math.lth.se>

to Martial, pcs@eccv2018.org ▼

If that's a consolation you are not alone.

Cristian

...

---

**Martial Hebert** <mhebert@andrew.cmu.edu>

to pcs@eccv2018.org ▼

It's pretty catastrophic. What do we do?

Also, did you see that deletion request? I can't find that email.

---M

# Good reviews, bad reviews

# The bar is my bar

## Examples:

“should compare to 361 other methods.”  
[in a paper that already has 4 double-column  
pages splattered with comparisons]

“method not so novel and not evaluated in detail.”  
[in a dataset paper, which shows a ‘method’ as a  
baseline accompanying the dataset]

“Should have gone further, doing X,Y,Z”  
[in paper achieving something new, and beyond  
existing works, also noted by the reviewer]





# The bar is my bar

## **Why bad:**

the bar for acceptance *is not whatever the reviewer wants.*

## **Good reviewer:**

The bar is 'good enough for ECCV/CVPR/ICCV', as defined by the standards of the field.

Golden question: does this paper do more than anything existing in a particular direction?



# Too short or unjustified

## Examples:

“This was done before.”  
[without citation]

“The results are not convincing.”  
[with no further detail]



# Too short or unjustified

## **Why bad:**

the author has no way to understand the criticism, nor respond to it in the rebuttal, nor to revise the paper to address it. Entirely useless.

## **Good reviewer:**

Justify and explain. Provide that citation, tell what is missing in the results (e.g. -2% wrt SOTA)

Golden question: if I receive this comment, could I respond to it? Or is it the end of the line?



# Mismatched words and score

## Examples:

“Strong idea, good results. The explanation of the method could be improved somewhat.”

→ weak reject

“It does not really work. Paper [3] did something like this before, and their results are better. [some minor point X] could be inspiring.”

→ weak accept





# Mismatched words and score

## Examples:

“For all the things this paper does well, it falls short of being a great paper.”

→ borderline

“The rebuttal was excellent. I am satisfied. I confirm that this paper should be accepted.”

→ borderline accept (which is < weak accept!)



# Mismatched words and score

## **Why bad:**

the Area Chairs cannot reuse the score in their decision. They need to interpret your words to estimate your position. Or worse: the ACs do not notice and just decide based on the score!

## **Good reviewer:**

Score based on *overall merits* of the paper. Take a global view. Don't get hung up on any one aspect.

Golden question: does the score reflect my overall appreciation of this paper? If not, rewrite the review, or change the score.



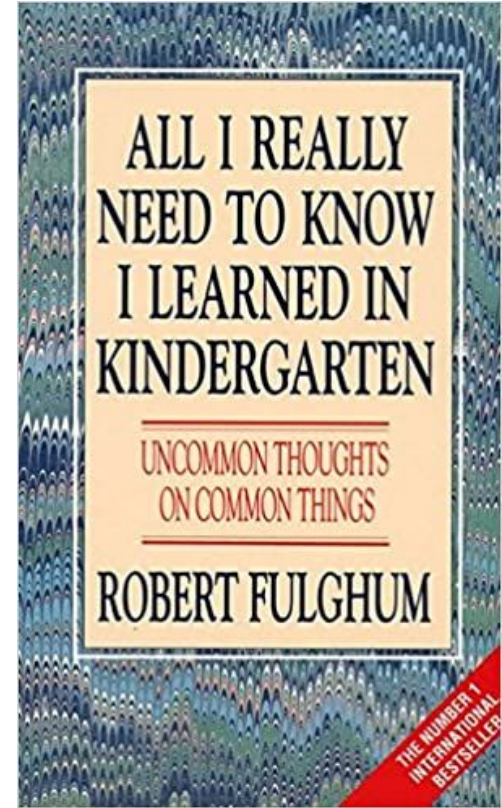
# Take-home message

**Treat others like you want them to treat you**

→

**Write the kind of review you would like to receive as an author**

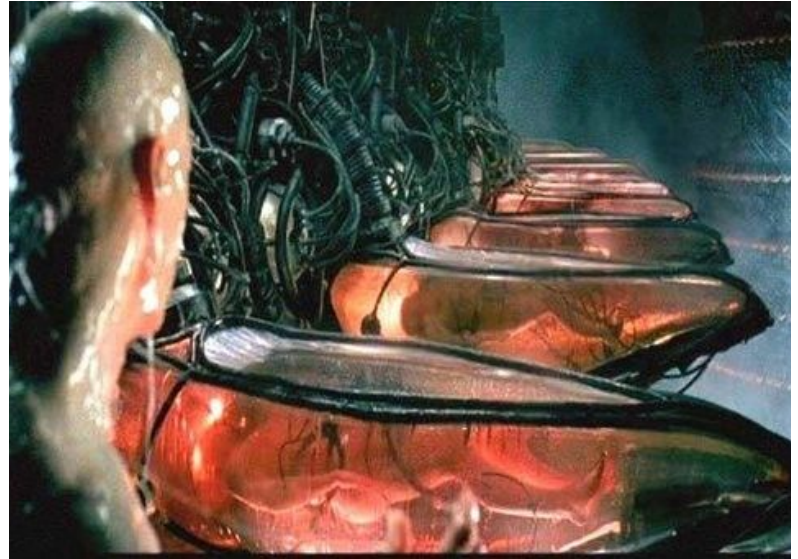
**And behave like the kind of reviewer you would like to have in your pool as an AC or PC**



# Be a good part of The System?

**Goal:**  
**Serve The System**

**Like in the Matrix:**  
**give your energy to it**  
**(to inform the decision process)**



**Many alternatives: go on an ego trip, do a rush job, pick feudal battles, deter innovation, ...**



# The choice is yours

