# Conferences and Journals

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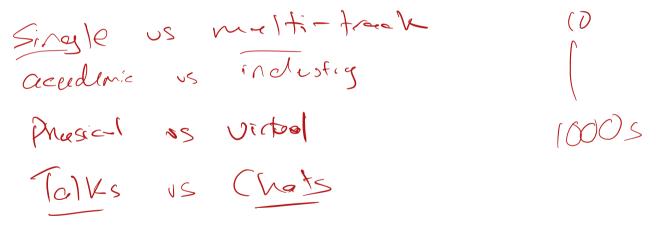
#### CSCI 8901: Research & Evaluation Methods

#### Prof. Tim Wood GWU

### Conferences

Who has been to a conference?

What was it like?



### AAAI

Prestigious conference in Artificial Intelligence

- Accepted

submissions (21%) in 2020

- 8 page papers, double-blind submissions



#### Prestigious conference in Operating Systems

- Accepted

submissions (18%) in 2020

- 12 page papers, double-blind submissions

 $-30^{25}$ 



Prestigious conference in Artificial Intelligence

- Accepted 1,692 out of 7,737 submissions (21%) in 2020
- 8 page papers, double-blind submissions



Prestigious conference in Operating Systems

- Accepted 70 out of 400 submissions (18%) in 2020
- 12 page papers, double-blind submissions

### **Conference** Timeline

Register abstract before deadline (optional)

Submit paper

Wait 2.5 months for reviews

Write rebuttal within ~3 days (optional)

Receive accept/reject 1 week later

Revise paper with shepherd (optional)



Submit Camera Ready paper 2 months later

Present at conference 1 month later

### Conferences

What are the top 2-3 conferences in your field?

- If you aren't sure, talk to your advisor and others in your lab!
- How many papers typically get accepted?
- What is the length of papers?
- What organization runs the conference  $\mathcal{A}_{\mathcal{A}}^{\mathcal{A}}$ How big is the program committee?
- Who is on the PC and Organizing Committee?
- When is the deadline?

### No blinding

Blind?

Single blind: your name goes on paper, but you don't know who reviewed your paper

Double blind: both authors and reviewers are anonymous

#### Benefits?

- Tries to combat bias in reviewers
- Becoming the norm in many fields

In either case, typically need to mark "conflicts"

- People you have worked with recently (usually ~2 years)

### **Deadlines/Extensions**

#### Abstract deadline

- May need to submit title/abstract before paper
- Helps organize reviewers

Some conferences have "hard deadlines"

- Will not change

Others have a history of always extending the deadline by 1 week to 1 month

- But don't rely on this!
- What does it mean if a conference keeps extending its deadline?

# Can ask PC Chairs for an extension, but need a **really** good reason

# **Rolling** Deadlines

In the past, conferences had one deadline per year

#### Rolling deadlines

- Multiple deadlines over course of the year
- VLDB was one of the early conferences to adopt this
- Mixes conference and journal submission styles

### Goals:

- Shorter response time
- Don't have to wait for a specific deadline
- Encourage submission of polished papers when they are ready

#### Challenges:

- Spreads reviewing out over the full year, a lot of work for PC

NSST-2

# Why go?

What are the benefits of attending a conference?

# Why go?

### What are the benefits of attending a conference?

- Presenting your work so they know about it and you
- Learning about other people's research
- Getting to speak to experts in the field
- Getting to speak to you peers
- Getting to help new students entering the field!
- Great time to think about new directions

# Workshop + Conference

#### Workshops are mini conferences

- Shorter page limits
- Fewer attendees
- Less visibility
- Higher acceptance rates

Good way to get preliminary feedback on a paper

Can expand and submit to a conference later

- Will need more content! Avoid excessive copy/paste

Great excuse to attend a top conference! Same story for Poster and Demo sessions!

### Journals

#### Who has submitted to a journal?

What was it like?

### ML Journals

#### Machine Learning

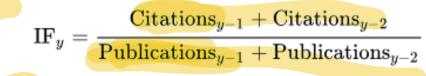
- Started in 1986, published by Springer
- Impact Factor: 1.47

#### Journal of Machine Learning Research

- Started in 2000, open access online
- 40 editors from ML quit to join JMLR
- Impact Factor: 2.45

### Impact Factor

- Measures average citation rate



## Journal Timeline

Submit paper and cover letter

Wait 2 months for first round of reviews (3+)

- Reject\_ Revise & resuburit
- Major Revision
- Minor Revision
- Accept

Revise and resubmit

Wait 2-3 months for second round

Complete final revisions

Transfer copyright, preprint appears online Total time: 6-18 months

No deadline



### **Special Issues**

Some journals periodically have special issues narrowly focused on a specific topic

Pros/Cons:

- Usually has a shorter response time
- Specific deadline to target
- More likely to have a good match for reviewers
- Might have higher visibility than normal journal
- Might not have the opportunity to revise and resubmit

# Why Submit?

More civilized review process than conferences

- Allows revisions and iteration with the help of reviewers
- Flexible deadlines open at any time

# But... doesn't have the presentation like a conference

- May not gather as much attention

In most CS fields, journals are less competitive and less impactful than conferences

- You should always want your work to have maximum impact!

### Conference + Journal

Write a great conference paper, then extend it and submit it to a journal

- Best of both worlds!

Can't just submit the same paper!

- This is "self-plagiarism"
- Typically nee<mark>d ~30% new content</mark>
- Must cite your prior paper and mention in cover letter

But, conference page lengths have grown and some journals have not

- 12 page conference papers, 12-14 page journal papers

# **Public Speaking 1**

### Speak for <2 minutes

Pick one of these topics:

- Describe a memorable vacation or trip
- Tell us how your home town is similar or different from DC
- You may NOT write a script or notes while others present!

### I will record you!

- Homework: watch your own presentation and think about how you can improve upon it
- Due in 2 weeks

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- 1. Kahang
- 2. Deng
- <mark>3.</mark> Maorui
- 4. David
- 5. Cuidi
- 6. Cat
- 7. Linsheng
- <mark>8</mark>. Emil
- 9. Jie
- 10. Xiaosu
- <mark>1</mark>1. Nathan
- 12. Collins
- <mark>13</mark>. Xinyu
- 14. Hunter
- 15. Ellie



Have you helped review a paper?

# Organizers

#### General Chair(s)

- Manage the overall conference logistics
- Other chairs: Local arrangements, Publicity, Publication, etc

### Program Committee Chair(s)

- Manage the technical program
- Assign reviews and make final acceptance decisions
- Also possibly [Senior] Area Chairs if lots of reviewers

#### **Program Committee Members**

- Do the actual reviews

### Paper Assignment

### Coordinated by PC Chairs

### 1) PC Member Bidding

- Look at abstracts and score interest in each paper (-100 to 100)
- Might be divided by area first based on author selection
- 2) Automated Paper Matching
  - PC members submit their own past papers
  - ML algorithm classifies your papers and matches you to similar submitted papers
  - Used at really big conferences in AI and Security

### How many papers?

Number of reviews per PC member varies by field

### AI/ML

6 papers per PC member
-/3-4 reviews per paper

### Networks/Systems

- 10-20 papers per PC member
- 3-6 reviews per paper

### Your area? Socurity

8000-7100s 2371 of 70-50

### Scores

### Scores will vary

- Not everyone reviews the same way
- Not everyone will see all papers

Most papers will get low scores

- Typically 1 (reject) to 5 (strong accept)

Leads organize discussion

Shepherds guide revisions

- Rare in some communities, but mandatory in others

	Reviews	Leads	Shepherds	OveMer
R	<u>27</u>	<u>3</u>	<u>1</u>	<b>88542</b> 2.41 ± 1.28
\$12	<u>26</u>	<u>3</u>	<u>1</u>	<b>1 5 15 5 0</b> 2.92 ± 0.74
¢	<u>25</u>	<u>3</u>	<u>1</u>	<b>1 12 8 4 0</b> 2.60 ± 0.82
ame way 🥻 oers (	<u>28</u>	<u>3</u>	2	<b>2 15 7 4 0</b> 2.46 ± 0.84
	<u>18</u>	<u>2</u>	<u>1</u>	<b>35271</b> 2.89±1.28
scores (	<u>15</u>			<b>34530</b> 2.53 ± 1.06
	<u>16</u>	2	<u>1</u>	<b>56320</b> 2.12 ± 1.02
ng accept)	<u>24</u>	<u>1</u>	<u>1</u>	<b>3 10 6 5 0</b> 2.54 ± 0.98
	<u>13</u>			<b>72220</b> 1.92 ± 1.19
on Tim	24	<u>3</u>	<u>1</u>	515121 7.1210.99
ns but	26	3	2	<b>5 5 4 <u>12 0</u></b> 2.88 ± 1.21
	<u>27</u>	2	<u>1</u>	<b>1 18 4 3 1</b> 2.44 ± 0.89
	<u>25</u>	<u>2</u>	<u>1</u>	<b>11 7 4 2 1</b> 2.00 ± 1.15
Hoterp	<u>26</u>	<u>2</u>	<u>1</u>	<b>95660</b> 2.35 ± 1.20
te	<u>27</u>	<u>4</u>	2	<b>86283</b> 2.70±1.46
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### Scores

Scores of accepted papers at SomeConference

No paper is perfect!

Most accepted papers had at least one "weak reject"



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# In Person PC Meetings

Becoming more rare as conference / PC sizes grow

- Everyone sits in a room for 1-1.5 days and discusses all papers that weren't clear rejects. Social get together of the elite...

#### SomeConference

- 185 total submissions
- 3 reviews per submission in first round
- ~80 rejected
- 2 more reviews per submission in second round
- ~35 rejected
- 5 pre-accept
- ~50 discussed at PC meeting (10.5 hours + dinner)
- 27 accepted (32/185 total accepted)

# **Online PC Meetings**

More common for larger and less prestigious conferences

- PC members add comments (never seen by authors)
- Some papers are obvious, others needs lots of discussion
- Typically ~1 week of active commenting

PC Chairs coordinate and encourage discussion

- Help decide final decisions based on reviews and comments

### Semester Project

You should be working on your research project throughout the semester

- Assume this is always your homework

#### Course assignments

- Project overview draft 1
- Paper Review / Literature Survey 🛑
- Project overview draft 2
- Experiment Plan
- Experiment Report
- Final Report
  - Combines all of the above

### Zotero Demo

Useful tool for tracking citations

Tim Wood - The George Washington University - Department of Computer Science

# Paper Review / Lit Survey

Carefully read N papers related to your project

- 1  $\leq$  N  $\leq$  6 - your choice based on where you are in your project

Describe the paper - 1 paragraph

List strengths and weaknesses - bullet points with 1-2 sentences each

Describe how this work relates to your project/ problem

PhD students: Write 1 paragraph on how you will organize papers and track your bibliography

Due in class week 5