TUM School of Computation, Information and Technology Technische Universität München



# Internet Measurements Seminar

https://www.ce.cit.tum.de/cm/teaching/summer-term-2025/internet-measurements-seminar/

### ТШП

### **Outline**

- 1. Structure and Goals of the Seminar
  - a. Seminar Structure and Grading Scheme (Reviews + Presentation)
  - b. Learning Goals and Outcomes
- 2. Reviews
  - a. HotCRP Example
  - b. Reviewing Process
  - c. Writing Hints
- 3. Presentation Hints
- 4. Organizational Matters



## **1. Seminar Structure and Grading Scheme**

- Regular conference paper publication process:
  - Call for Papers: Submission until specified date
  - Round of reviews by technical committee: decision to accept/reject?
  - Presentation of accepted/revised papers during conference sessions
    - Followed by discussion and Q&A

In this Seminar: Reviews + Presentation	Grading
<ul> <li>Pre-selected (published) papers on Internet Measurements</li> </ul>	
<ul> <li>Each student reviews papers for the sessions</li> </ul>	<b>40%</b>
Include 3 in-depth questions about the paper	10%
Each student presents 1 paper (~12-13 min + 5-7 min discussion)	<b>40%</b>
Include your own thoughts on the paper in one slide at the end	10%



### 1. Learning Goals and Outcomes

- Learn about latest research in the area of Internet Measurements
  - Current problems, state-of-the-art methodology, open questions
- Acquire general skill set by taking roles of a reviewer and a presenter
  - Scientific conference/workshop, peer reviewing, paper publication process
    - How are good research papers presented in written form?
    - Importance of reproducibility and artifacts
  - Critical thinking while reading/reviewing papers and listening to talks
    - Questioning content, identifying strengths/weaknesses
    - Extract key results and main findings → takeaways
    - Presentation and discussion of results in concise manner for a talk

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## 2. HotCRP Example https://hotcrp.com

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	(All) in Submitted papers C	earch	
	Search Advanced search Saved searches View options	# Review	s RepCo
0	#1 Characterizing a Meta-CDN 😕	0	
0	#2 Open Connect Everywhere: A Glimpse at the Internet Ecosystem through the Lens of the Netflix CDN 👃	6	0.
0	#3 A First Look at QUIC in the Wild 🔊	6	L
	#4 Real-time Video Quality of Experience Monitoring for HTTPS and QUIC 🍌	5	11.4
	#5 Mission Accomplished? HTTPS Security after DigiNotar 📕	5/6	L
0	#6 Understanding the Role of Registrars in DNSSEC Deployment 📕	7	L.
0	#7 Performance Characterization of a Commercial Video Streaming Service 😕	0	
	#8 Vroom: Accelerating the Mobile Web with Server-Aided Dependency Resolution 👃	6	1.4
	#9 Deep Diving into Africa's Inter-Country Latencies 🔊	6/7	0
0	#10 Inside the Walled Garden: Deconstructing Facebook's Free Basics Program 👃	6	
0	#11 Cell Spotting: Studying the Role of Cellular Networks in the Internet 🔊	6/7	11
0	#12 Dissecting VOD Services for Cellular: Performance, Root Causes and Best Practices 🝌	7	
	#13 Challenges in Inferring Internet Congestion Using Throughput Measurements 🔊	5/6	11
0	#14 TCP Congestion Signatures 📕	7/8	

t Select papers (or select all 14), then Download · Tag · Assign · Decide · Mail

### Write Review

Offline reviewing Upload form: Choose File No file chosen Go Download form · Tip: Use Search or Offline reviewing to download or upload many forms at once.

### Paper summary

Please summarize the paper briefly in your own words.

### Strengths

What are the paper's strengths? You may comment on the importance of the problems addressed, the novelty of the proposed solutions, the technical depth and potential impact.

### Weaknesses

What are the paper's weaknesses? Just a couple sentences, please.

### Technical Aspects

Is the research question well-motivated? What technical aspects are missing to understand the paper?

### Security Considerations

Did the authors cover attacks and defense mechanisms (implicitly/explicitly)? Are there others that are missing?

### **Presentation of Proposal**

Does the abstract convince the reader to read the full paper? Is the paper well-written and wellorganized overall? Does the conclusion address the problem identified in the introduction?

# 2. Reviewing Process

- We invite each of you to our HotCRP instance
- Check email address (login) in invitation email
- Registration form: affiliation/collaborators can be anything (e.g., TUM)
- Papers will be imported to HotCRP for reviewing

- Reviews are due until the presentation date **if not presenting** on that day
  - i.e., before a session you either review OR prepare a presentation
- Overall 6 reviews throughout the seminar

# 2. Writing Hints for Reviews

- Review form provides prompts to assist in commenting on the papers
- If you used AI assistance for writing (i.e., anything beyond Grammarly), you must mark anything produced by such tools (incl. which one you used)
- Examples for public reviews:
  - SIGCOMM 2024 (sign up required) <u>https://sigcomm2024-program.discourse.group/</u>
  - TheWebConf 2024 <u>https://openreview.net/group?id=ACM.org/TheWebConf/2024/Conference</u>
- For in-depth questions:
  - Avoid generic questions such as "Can we apply AI/ML?"
  - Try to ask questions that, e.g., propose changing the design or configuration of the study and briefly elaborate on why

(~30% of time)

(~10% of time)

(~5% of time)

### 3. Presentation Hints

- Presentations typically follow the structure of the paper
  - Motivate the subject (~15% of time)
     Explain measurement methodology (~40% of time)
    - Keep it simple: don't lose yourself in details; add background if needed
    - Present and discuss main/most interesting results
      - Usually summarized in abstract
    - Summarize main findings/conclusions and describe outlook
    - Add your own thoughts on the paper in 1 slide
      - e.g., strengths weaknesses, limitations
- Practice your presentation
  - Get feedback from your fellow students
  - Be aware of the time limit of ~12-13 min (time keeping is part of the grade!)



### 4. Organizational Matters

- Seminar sessions will take place roughly every two weeks (to provide enough time for reading and preparation of papers) on BBB
- Sessions start at 4 p.m. (preliminary)
- More information once the semester starts, introduction session will likely be on the first day of the lecture period (April 23)