Reviewing ISMIR Papers
Some Personal Thoughts

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Reviewer Q&A Session for ISMIR 2022
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FAU Friedrich-Alexander-Universität Erlangen-Nürnberg
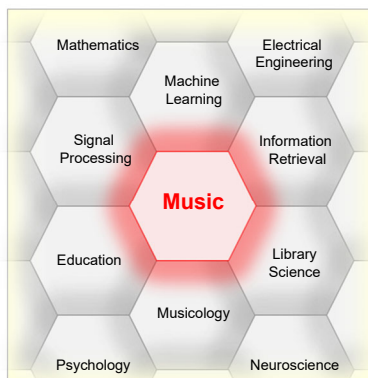
Fraunhofer IIS

Meinard Müller

- Academic Background
  - 1997: Master (Mathematics)
  - 2001: PhD (Computer Science)
  - 2007: Habilitation (Information Retrieval)
  - 2012: Professor (Semantic Audio Processing)

- Personal ISMIR History
  - 2003: First ISMIR paper as co-author
  - 2012 & 2015: Scientific program chair
  - 2009-2021: Member of ISMIR Board
  - 2020/2021: President of ISMIR

- IEEE Fellow (Music Signal Processing)

- ACM Senior Member

What is MIR?

- Research of computational systems to help humans understand music-related data

- Multifaceted area drawing from a diverse set of disciplines

Mathematics — Machine Learning — Electrical Engineering — Signal Processing — Information Retrieval — **Music** — Education — Library Science — Musicology — Psychology — Neuroscience

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Why is ISMIR special?

ISMIR

- We all love music and technology …

- Independent, young, and vibrant community

- Support for next generation of scientists

- Equal focus on research and education

- Encouragement of interdisciplinarity & diversity

- Support of open access and reproducibility

ISMIR Conference

ISMIR

- Yearly conference

- Open access to all articles

- Copyright stays with authors

- 200 – 500 participants (increasing number)

- 100 – 120 papers accepted (acceptance rate 40 – 50 %)

- **ISMIR is where you get the best feedback for your work on MIR**

- **ISMIR is where you meet people who know and love MIR**

Review Decision Process

- Scientific Program Chairs
  - ISMIR 2022: Masataka Goto, Rafael Caro, Xavier Serra, Rachel Bittner
  - Organize review process
  - Make final decisions (accept vs. reject)
  - Compile scientific program
- Meta Reviewers
  - Help selecting reviewers
  - Review papers
  - Lead discussion phase
  - Provide summary with preliminary decision
- Reviewers
  - Review papers
  - Participate in discussion phase
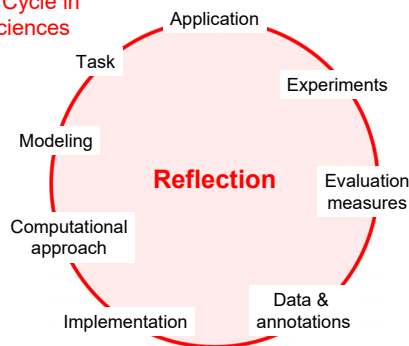
What Should a Review Achieve?

- Help scientific program chairs making a fair and transparent decision

- Help meta reviewers making a balanced recommendation

- Work out strengths and weaknesses of paper

- Give authors feedback on their work

- Help authors improve their work

- Support and shape the ISMIR community

What are Possible Evaluation Criteria?

- Appropriateness of topic
  - Does the paper fit into the scope of ISMIR?
- Scientific and technical soundness
  - Is the notation and math correct?
- Reproducibility
  - Can the results can be understood and reproduced?
- Readability & paper organization
  - Are the essential points worked out clearly? Is there a take-home message?
- Stimulation potential
  - May the paper trigger exciting discussions?
- Novelty and relevance
  - Does the paper make some original and substantial "contributions"?
  - Does the paper provide "insights"?

What is a "Contribution"? What are "Insights"?

Research Cycle in Applied Sciences

Application
Task
Experiments
Modeling
Reflection
Evaluation measures
Computational approach
Implementation
Data & annotations

The Blessing and Curse of Applied Sciences

- You can make contributions in many ways
  - Novel application or task
  - Novel computational approach
  - Efficient implementation
  - Novel dataset and annotations
  - Novel evaluation measures
  - Interesting experiments
  - …
- A problem is hardly ever "solved" – so you can always contribute something

- You never "solve" a problem completely

- You always miss some aspects

- Your modelling always goes along with simplifications

- Your work is always vulnerable and disputable

Accept **REJECT**

The Blessing and Curse of Interdisciplinarity

- You can make contributions coming from various disciplines
  - Information retrieval
  - Signal processing
  - Musicology
  - Library sciences
  - Human computer interaction
  - Machine learning
  - …
- You can contribute with novel collaborative work

- There are many different perspectives on your work
  - Technical perspective
  - Music perspective
  - Data perspective
  - …
- You will never do justice to all disciplines

- Your work is always vulnerable and disputable

Accept **REJECT**

The Blessing and Curse of ISMIR

- Support of young researchers

- Balance in topics and approaches

- High acceptance rate (40-50%)

- Open exchange of ideas

- Cooperative environment

- Authors and reviewers may have little experience

- Inconsistent reviews

- Paper quality is very mixed

- Get a publication out

- Competitive environment

Accept **REJECT**

What You Should Keep in Mind

- Show respect

▪ Show that you care and appreciate the article
➢ Authors have worked hard
▪ Stay positive and assume good faith
▪ Be clear and direct, but also encouraging
▪ Criticize the work, but not the authors

What You Should Keep in Mind

- Show respect
- Be detailed and specific

▪ Short reviews are hardly useful (and may even be harmful)
" … I like the paper, and I think it should be accepted ..."
" … This paper offers no technical novelty and should be rejected ..."
▪ Your review should help
➢ Authors
➢ Meta reviewers
➢ Program chairs / editors
▪ Justify the score in detail
▪ However, do not get lost in details (fixing typos, re-writing, …)

What You Should Keep in Mind

- Show respect
- Be detailed and specific
- Make your perspective explicit

▪ You may mention your background in the review
▪ Explain which perspective you take
" … My background is in music sciences, and I look at the paper from a musicological perspective …"
" … In the following, I want to comment on the paper from a technical perspective ..."

What You Should Keep in Mind

- Show respect
- Be detailed and specific
- Make your perspective explicit
- Be honest

▪ Never write something you are not sure of
▪ Better admit when you are lost and focus on the aspects you know well
" … Since I am not familiar with … I do not comment on the technical contributions ... However, from an application perspective, I can say that … "
▪ Note: We are all learners in almost all areas

What You Should Keep in Mind

- Show respect
- Be detailed and specific
- Make your perspective explicit
- Be honest
- Take a clear position

▪ Use the whole spectrum of evaluation scores
▪ If you find a paper outstanding, give it the highest score
▪ If you think the paper is really bad, give it the lowest score
▪ Always give convincing support for your recommendation

What You Should Keep in Mind

- Show respect
- Be detailed and specific
- Make your perspective explicit
- Be honest
- Take a clear position
- Actively participate

▪ Read guidelines and examples
▪ Participate in discussion phase
▪ If you are unsure, ask for help
➢ Supervisor
➢ Meta reviewers
➢ Program chairs / editors
▪ Better cancel in time than be sloppy
Dealing with poor reviews is an editor's worst job
▪ Be reliable and responsive
Chasing after reviewers is an editor's second worst job

Why Should You Become a Reviewer?

- Read interesting articles

- Learn about new research trends

- Get to know "the other side"

- Reflect on your own work and publications

- Support the next generation of researchers

- Become part and give something back to the community

Guidelines for Reviewers (ISMIR 2012)

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Technical Guidelines
- Scheduling
- Evaluation Criteria
- Comments for the Authors

Ethical Guidelines
- Commitment and Respect
- Confidentiality and Anonymity
- Conflicts of Interest

Literature & Links

- Meinard Müller, Perfecto Herrera, Luis Gustavo Martins, Fabien Gouyon:
  Guidelines for Reviewers. ISMIR 2012
  https://ismir2012.ismir.net/authors/submission/2012_ISMIR_GuidelinesReview.pdf

- ISMIR Reviewer guidelines (ISMIR website)
  https://ismir.net/reviewer-guidelines/

- Tom Collins: ISMIR Review Examples. 2015 (updated 2019)
  https://tomcollinsresearch.net/pdf/ismirReviewExamples.pdf

- Blair Kaneshiro, Jordan B. L. Smith:
  Insights on the ISMIR Reviewing Experience. ISMIR 2021 Blog
  https://ismir2021.ismir.net/blog/insights/
  https://ismir2021.ismir.net/blog/insights2/

- Blair Kaneshiro, Zhiyao Duan, Juhan Nam, Preeti Rao, Peter van Kranenburg,
  Jordan B.L. Smith: Preparing a Successful ISMIR Submission. ISMIR 2021 Blog
  https://ismir2021.ismir.net/blog/preparing/

- ISMIR 2022 Review Form
  https://ismir2022.ismir.net/reviewform