

Journal and Conference Articles

- Objectives
 - Academic conferences and journals.
 - Format of journal articles.
 - Process of journal publication.
 - Conference papers.
 - Peer review.
- Main reference
 - J.G. Paradis and M.L. Zimmerman, The MIT Guide to Science and Engineering Communication, 2nd Ed., MIT, 2002.

Presenting the Research

- After a research project has reached main objectives, the final step is to disseminate the results.
- Primary forms of dissemination
 - Within institution
 - MSc/PhD theses.
 - Technical reports.
 - Beyond institution
 - Conference papers.
 - Journal articles.
- Order and focus of lecture.

Academic Conferences

- An academic conference is a formal event where researchers present results and exchange information.
- Forms of exchange.
- Submission and acceptance.
 - Rigor in review and acceptance rate.
- Naming.
- Length of conference.
- Length of processing.
- Ex [AI 2009](#).

Academic Journals

- An academic journal is a peer-reviewed periodical where scholarly work on a particular discipline is published.
- Content.
- Articles are submitted for publication and reviewed by experts who assess the validity and originality.
- Length of publication process.
- Ex [IJAR](#).
- Comparison with conferences.

Publication in Referred Journals

- Implications of publication
 - Become part of the knowledge in a field.
 - Publically accessible.
 - May be cited by others in the field.
 - From it, new theory may be advanced.

Target a Journal for Submission

- There are about 60,000 referred sci/eng journals.
 - Nature and scope of your research limit the number of suitable journals dramatically.
- Factors to consider for suitability
 - Journal title.
 - Aims and scope.
 - Ex [JAR](#).
 - Categories of manuscripts.

Journal Article Format

- Front matter
 - Title
 - Abstract
 - Keywords
- Body of article
 - Introduction
 - Literature review
 - Theory
- Algorithm or model
- Experiment
- Results
- Conclusion
- End matter
 - Acknowledgements
 - References
 - Appendixes

Front Matter

- Title
 - More widely read than other parts.
 - Judgment of relevance by potential readers.
 - Informative and concise
 - Reflect the specific content of work.
 - Avoid uncommon abbreviations.
 - Length

Front Matter (cont)

- Abstract
 - After title, more widely read than other parts.
 - Likely available electronically even if the article is not.
 - It is the article in miniature.
 - Typical length.
 - Ex [An example abstract](#).
- Keywords
 - Crucial to access by others.
 - May be freely select or from a predetermined list.
 - Represent the most important concepts.

Body - Introduction

- Introduction
 - The problem and motivation.
 - Previous research.
 - Contribution and originality.
 - Organization.
 - Informal.
 - Sketchy.

Body - Literature

- Literature review
 - Summary and critical assessment of main trends.
 - Controversies.
 - Ex [\[Cheeseman, IJCAI, 85\]](#).
 - Accomplishments.
 - Ex [\[Xiang & Jia, IEEE-SMC, 07\]](#).
 - Direction of present work.
 - Ex [\[Xiang & Hanshar, IJAR, 09\]](#).
 - Accompanied by reference.
 - Publically accessible.
 - Trends vs background.

Body - Theory

- Theory
 - Assumptions.
 - Ex [\[Xiang & Lesser, IEEE-SMC, 03\]](#).
 - Formal model and governing equations.
 - Ex NIN-AND tree [\[Xiang & Jia, IEEE-SMC, 07\]](#).
 - Parameters.
 - Ex FTOPA.

Body – Algorithm or Model

- Algorithm
 - Intuition.
 - Pseudocode.
 - Data structure.
 - Informal walk-through.
 - Soundness.
 - Complexity.
- Model
 - Ex A cognitive model of user navigation on WWW.

Body – Experiment & Results

- Experiment
 - Methods, setup, and procedure.
 - Allow judgment on how skillful the design is.
 - Allow independent test against your results.
- Results
 - Data presentation.
 - Statistical analysis.
 - Interpretation.

Body – Conclusion

- Conclusion
 - Restate findings and implications.
 - Main accomplishments in connection with large issues.
 - Possible applications.
 - Future directions.

End Matter

- Acknowledgement
 - People
 - Funding agency
- References
 - Follow the required style (e.g., IJAR).
 - Must be cross-referenced.
- Appendixes
 - Ancillary information.
 - Detailed data, proof, or derivation.
 - Possibly published by separate media.

Manuscript Preparation

- Follow “Instructions to Authors” (e.g., IJAR).
- Length restriction and page charge.
- Separation of figure, table, and captions.
- Charge for color and implication.
- Electronic submission.
- Formatting templates.
- Copyright assignment form (e.g., IJAR/Elsevier).

Submission and Referring

- Manuscript with cover letter.
- Copyright transfer form.
- Suggested referees.
- Statement of originality.
- Suitability test.
- Quality assessment through peer review.

Ex Initial Evaluation [IJAR]

“The Editor first evaluates all manuscripts. It is rare but it is possible for an exceptional manuscript to be accepted at this stage. Manuscripts rejected at this stage are insufficiently original, have serious scientific flaws, have poor grammar or English language, or are outside the aims and scope of the journal. Those that meet the minimum criteria are passed on to at least two experts for review.”

Revision and Resubmission

- Response to submission
 - Rejection.
 - Minor or major revision.
 - Acceptance.
- Multiple rounds of revision are common.
- Prestigious journals vs non-refereed publications.
- Copyediting and proofreading.
- Page charge and offprint.

Conference Papers

- Conferences: fully refereed vs non-refereed.
- Refereed conference
 - Submission of full paper.
 - Similar format to journal articles.
 - Similar criteria of refereeing.
 - Degree of conclusiveness.
 - Strict limit in length.
 - Fast turnaround.

Why Peer Review?

- There is no single authority in assessing research.
- How can newly established facts and conclusions be identified from all that have been claimed?
- Pooling expertise from multiple experts.
 - Decide on publication (also on funding, thesis defense, and project approval).
 - Feedback to authors.

Criteria of Evaluation

- Criteria of evaluation
 - Common: Relevance, soundness, originality, significance, and clarity.
 - Follow specific guidelines.
 - Ex A positive review.
 - Ex A negative review.
- Attitude and language
 - Polite.
 - Constructive.