

## **Guide to Journal Club Papers**

Courtesy of Michelle Li (Harvard)

*These guidelines might be helpful for someone putting together a journal club presentation or trying to read through a paper for the first time. Try and think through these questions before coming to a journal club!*

1. What is the title of the paper, and who are the authors?
  - a. If multiple authors, it is sufficient to say the first author et al.
  
2. What is the paper's main question/problem?
  - a. Why is the question/problem important?
  - b. What are the gaps that the paper is trying to address?
  - c. If leading a journal club, briefly provide the necessary background information to understand the question/problem.
  
3. How is the paper's question/problem solved?
  - a. What techniques did they use?
    - i. If leading a journal club, briefly describe the technique. Feel free to bring in external figures to help you explain it.
    - ii. What positive and negative controls did they use in their experiments and/or computational analyses?
    - iii. What statistical analyses did they use?
  - b. What are the key results?
    - i. If leading a journal club, be sure to reference figures in the paper and/or supplementary materials.
    - ii. What did the authors do to validate their results?
  
4. What are the implications of the paper's results?
  - a. Given the paper's key results, what can we conclude about the main question/problem?
  - b. How has the paper furthered thinking in the field? What could we do now that we could not do before these findings were known?
  - c. What could be the next steps?
  
5. What are the strengths and weaknesses of the paper?
  - a. What did the study show versus leave unclear or unanswered?
  - b. What did you like (or not like) about the paper?
  
6. What questions do you still have about the paper?
  - a. Are there any results that surprised you?
    - i. Do you think the results are replicable?
    - ii. Are there any major/suspicious outliers?
  - b. Are you convinced by the results and techniques they used?

- c. What other techniques could have been used?
    - i. Why do you think they were not used?
    - ii. Do you think they should have been used instead of the ones chosen by the authors?
  - d. How would you make the authors' case stronger?
    - i. What sort of evidence would further support their claims/findings?
    - ii. What sort of evidence would argue against the authors?
7. If leading a journal club, provide a brief summary of the key points in the paper.