

## **Astronomy Journal Club**

### **Literature selection**

The astronomical literature is now huge. Given that we will review only a few papers during the academic year, it is important to select substantial papers for your presentation. I should also like to encourage international coverage. Hence please consider papers in major international journals (e.g. *Astronomy & Astrophysics*, *Monthly Notices of the Royal Astronomical Society*, *Publications of the Astronomical Society of Japan*, etc.) in addition to the major American publications (*Astrophysical Journal*, *Astronomical Journal*, *Publications of the Astronomical Society of the Pacific*). One more source of current astronomical literature can be found on the web, namely astro-ph: <http://xxx.lanl.gov/archive/astro-ph> but please review papers that indicate they are \*accepted\* for publication.

### **Some guidelines to aid in selecting a paper to review are:**

- Review papers should be avoided.
- New results or ideas are presented which are of interest beyond a specific sub-field of astronomy or astrophysics. This paper should be worthy of consideration by scientists with a range of astronomical interests.
- Applies new techniques, instrument, or technologies to astronomical research.
- Presents a significant (perhaps controversial) discovery or scientific insight.
- Covers a topic which you, the reviewer, finds interesting!

To help in the selection process we strongly recommend you discuss your choice of paper with a faculty member in advance of finalizing a decision. It would also be appropriate for you to try to fix a date well in advance for your presentation when this faculty member—who knows something about your topic—can attend the journal club.

### **Past experience suggests a successful journal club presentation takes heed of several points:**

- Keep your audience in mind -- remember both physics and astronomy people are in the audience and we won't always know the finer points or terminology of every area of astrophysics. Begin by stating the title, authors, and their affiliations, as well as where the paper was published or preprinted.
- Review the most important issues which the paper addresses. Introduce the topic of the paper and explain why it is important. Whenever possible, place the issues in an astrophysical or physical context, and feel free to use illustrative, quantitative examples of the underlying principles. Review key references as part of your reading of the paper, and include essential points from the references in your talk.
- Most presentations use PowerPoint. These need to be legible and comprehensible, and not too densely packed with information. Think about how to communicate the essence of the

paper without getting bogged down in the details. You can always provide suggestion for further reading or discuss details with interested people after your talk (it is a sign of success when people hunt you down to continue your journal club!).

- Feel free to explain what you feel are the strong and weak points of the paper, but be prepared for the possibility that members of the audience may hold different views.
- Close with a summary of your report. Point out any follow-on studies which you may have devised from your reading of the paper.