

# MAP 6437 with Dr. Monica K. Hurdal

## Reviewing Reports/Papers

A review can be used to help journals decide whether a paper should be accepted for publication. This type of review should evaluate the scientific merit and original research contribution of a paper. If you conclude the item duplicates previous work, you should cite specific references in your review as proof.

Another type of review, such as those used in *The Mathematical Reviews Database*, can be used to help a reader decide whether or not to read the original item. This type of review should state the main results and provide helpful comments that evaluate the item or link it with related items or approaches.

A review usually begins with a summary of the paper that is being reviewed. The review may include a positive or negative evaluation of the item. Negative or critical remarks should be objective, documented and expressed in good taste. Criticism needs to be specific as vague criticism can offend and fails to enlighten the reader or author.

Here are some criteria to consider when reviewing/critiquing a paper.

### Report Presentation

- Is the paper neat?
- Is the paper well organized?
- Has color been used appropriately?
- Have figures and tables been labeled, and labeled correctly?
- Are appropriate references cited if used?
- Are page numbers used correctly and all pages are included?
- Be sure all of the work can be easily found and nothing is missing.

### Mathematical Precision and Completeness

- Are the solutions complete?
- Can you understand how the solution was obtained?
- Has there been a correct use of mathematical notation?
- Are the graphs, figures or tables correct?
- Are they labeled correctly? (e.g. axes, units, variables, functions, titles or captions)

### Verbal Explanations, Content and Organization

- Are the explanations complete?
- Are the explanations precise and clear?
- Is there correct use of grammar and spelling?
- Are complete sentences used?
- Have figures and tables in the document been referred to in the text?
- Does the content represent a novel contribution, or does it review relevant material appropriately?
- Is the paper/report organized in a logical manner?
- Some of the following sections may be appropriate: introduction, previous relevant work, methods, theorems, proofs, results, discussion, conclusions, future directions, references.