

# Annual Meeting of the American Junior Academy of Science (AJAS) 2016

## Submission Guidelines

### Introduction

The Annual Meeting of the American Junior Academy of Science ([AJAS](#)) provides a platform for young scientists and engineers to experience the excitement of a scientific conference. Coinciding with the Annual Meeting of the American Association for the Advancement of Science (AAAS), it allows student scientists to witness their professional counterparts at their best.

The New Hampshire Academy of Science (NHAS) is proud to facilitate the submission of papers to the AAAS. While we encourage broad participation, the quality of submitted work will inevitably reflect on the student researcher, their school, and on the NHAS. Thus, the submission to the AAAS should reflect a high standard of research quality. The submitting authors assume full responsibility with respect to the quality and the integrity of the submission. The NHAS conference committee expects authors to conform to all standards customary in science. In particular, the conference committee will take any form of plagiarism extremely seriously.

The review process is set up to help improve the quality of the submission, as well as to select those papers that will ultimately be accepted by the NHAS. While the conference committee reserves the right to reject papers, students and teachers should consider the review process as a chance to raise the quality of their work. The conference committee is committed to work with students toward this goal.

### Preparing the Submission

#### Abstract.

Your submission must contain an abstract of the work you will present at the AJAS conference. The abstract will be submitted to the AJAS and ultimately published to an international audience. It is the abstract by which your work will be judged by others and should be written with care. Sample abstracts can be found on the AAAS website under the AJAS heading: (<http://www.aaas.org/2015abstracts-toc>)

The abstract should be a concisely written summary of the project, similar to abstracts written for other publications. It should convey the following information:

- 1) Title.
- 2) List of Authors (all authors should have contributed to the presented work; the first author should be responsible for the bulk of the research; the last author should be the senior scientist on the team, e.g. teacher, person who contributed the main idea, etc).
- 3) Rationale - the body of the abstract should contain information about why this research was conducted.
- 4) The hypothesis or project goal - the basic definition of the project.
- 5) A brief review of the method(s) used.
- 6) Results.
- 7) Conclusions - briefly, how the results are related to the project goal, and how they may be applied.

It is not expected that the abstract will provide a complete and thorough description of the research that is being reported. Rather, the abstract is an eye-catcher meant to generate attention and interest. By default, it is far too short to allow anyone to assess and judge the reported work, not even those who are experts in the field. For this reason, we request the submission of an additional "Summary".

### **Summary.**

Your summary provides the opportunity to supply the reviewers with greater depth in comprehending how the project was actually carried out, your results, and conclusions. The summary may also provide some insight into how the findings will be applied, or into future avenues of research. For the reviewers of the submission it should provide the basis to identify weaknesses and logical flaws of the investigation that would not otherwise come to light before the AJAS meeting.

The summary should not create any unbearable burden on the authors, but rather provide an opportunity to compile and organize the good work that was already done. It should be a 2-page document, perhaps 3 pages at the most. Exceptions are only made if additional materials (e.g. pictures) are deemed necessary to convey the essence of the conducted project. The summary should resemble the form of a short scientific paper. It might be best thought of as the framework of, or a building block to, a paper that may ultimately be submitted for publication.

The Summary will give, especially, the opportunity for greater explanation of the materials and methods, as well as results and how they were applied to form conclusions.

The basic format should resemble that of a typical scientific paper, (but with the abstract separated, as above):

- 1) **Abstract**, submitted above.
- 2) **Introduction**. Give the purpose and hypothesis of the research/experiment, with a brief review of prior work and a proper statement of the problem or question to be addressed. This may include the phrase: "The intention of this investigation was to-----".
- 3) **Materials and Methods**. This will be an important part of the Summary, in that it allows a more comprehensive explanation of the general procedures of the work, which could not be included in the abstract. These procedures are very important in the assessment of the quality and reliability of the scientific work by readers and reviewers.
- 4) **Results**. A thorough description of the results is necessary to assess whether the conclusions are supported by the work and, ultimately, the validity of the project.
- 5) **Discussion/Conclusions**. This section should discuss how the results can be applied to form conclusions, how these address the original intention of the investigation, how these conclusions are relevant and, perhaps, what new questions or avenues for future research are possible.

### **How to submit?**

Submissions should be sent to the chair of the Program Committee, Markus Testorf (email [markus.e.testorf@dartmouth.edu](mailto:markus.e.testorf@dartmouth.edu) and cc'd to [peter.faletra@gmail.com](mailto:peter.faletra@gmail.com)) who will distribute papers to the members of the committee for review. If possible, each paper will be assigned to at least two reviewers. Authors will receive a decision letter and/or suggestions for possible improvement as soon as the review is completed.

Once approved by the Program Committee, the authors may progress and submit the abstract to the AAAS (instructions will be provided).

### **Review process**

The Review Committee will make every effort to return reviews in a timely manner. The review will distinguish between four categories:

1. **Accepted submissions** - The abstract can be submitted to the AAAS without change.

2. **Accepted with optional revision** - The abstract can be submitted to the AAAS. However, at least one of the reviewers offered suggestions on how to improve the submission.
3. **Provisionally accepted pending mandatory revision** - The reviewers found significant shortcomings either in the abstract or the accompanying summary. The authors need to work with the Program Committee to address these shortcomings before the abstract can be submitted to the AAAS.
4. **Rejection** - The Review Committee reserves the right to reject submissions. This will happen if the submission is below the NHAS standards and cannot be revised without altering the project entirely, or if the reviewers find a case of plagiarism. Submissions may also be rejected if the NHAS receives more submissions than can be promoted by the NH delegation to the AAAS. In this case, the Review Committee will rank submissions in terms of their scientific excellence and allow only the best papers to go ahead with the abstract submission. Authors have the right to appeal the decision. However, the invitation to submit an abstract to the AAAS should be considered an honor rather than an entitlement.

The Review Committee will make every effort to make the review as fair and pleasant as possible. However, it is not uncommon (even for seasoned scientist) to feel intimidated if the results of their own most precious work is scrutinized. This is why authors are urged to consider the Review Committee a resource for improving the submission rather than an obstacle on the path to glory. The Reviewers will do everything in their power to help make the submission acceptable, even if the initial review was unfavorable.