

White Paper Review Criteria

Data Science Workshop, 2015

Merit Review Criteria

The NSF sponsored Data Science Workshop seeks to invite graduate students to participate in team problem solving efforts around Grand Challenge topics from across NSF sponsored research and engineering domains. The invitees are selected based on the strength of their submitted white papers. In addition, the authors of the highest scoring white papers will be selected for talks during the workshop and the topics of their white papers will be used to seed the Grand Challenge problem set tackled by teams during the workshop.

The white papers should describe a significant problem, challenge or growth opportunity in a domain that is Data Science / Big Data driven or related. It is also possible to structure a white paper around a proposed new method or tool with cross-cutting interdisciplinary application potential focused on Big Data / Data Science techniques. The white papers should contain at least three sections, Background, Problem Statement, Broader Impacts and be no more than three pages long including figures and references.

Each white paper will be reviewed individually using two common NSF Merit Review Criteria: **Intellectual Merit** encompasses the potential to advance knowledge; and **Broader Impacts** encompasses the potential benefit to other areas of research and society at large.

Example considerations to be used in the review for both criteria:

1. What is the potential for a solution to the described challenge or for the proposed tool / method to:
 - a. Advance knowledge and understanding within its own field or across different fields; and
 - b. Benefit society or advance designed societal incomes
2. To what extent is the described challenge a significant inhibitor to progress in research or engineering; Or alternately, how is the proposed tool / method novel and transformative?
3. Does the author present a solution sketch for the described challenge or is there a use case sketch for the proposed tool / method?
4. What is the relevance to the [NSF funding areas](#)?

Review Instructions

Reviewers need not weight **Intellectual Merit** and **Broader Impacts** criteria equally. Reviewers will assign a rating to each review criterion (Excellent, Very Good, Good, Fair or Poor) and provide constructive written comments that support the rating. Reviewers are evaluating individual white papers based on the above criteria and should avoid judgments that may be influenced by implicit biases. *Panelists must be aware of how implicit biases might affect their evaluations, and make every effort to avoid biases, or the perception thereof, in the evaluation of the white paper and in their comments.* Comments should be thorough and substantial, informative, non-inflammatory, non-discriminatory, helpful to the white paper author and should support the ratings assigned.