Review of 2C

October 10, 2019

Rating:

1. What is the potential for the proposed activity to:

   (a) Intellectual Merit? Excellent

   (b) Broader Impacts? Excellent

2. Creative, original, or potentially transformative concepts? Excellent

3. Proposed activities well-reasoned, well-organized, and based on a sound rationale? Incorporate a mechanism to assess success? Very Good

4. How well qualified is the individual, team, or institution to conduct the proposed activities? Very Good

5. Adequate resources? Excellent

Summary

Intellectual Merit

There seems to be a great deal of intellectual merit in this proposal. The use of the steady state heat equation for approximating the fire movement seems novel and logically sound. Introducing a real-time pipeline will be a benefit to both fire research as well as those actively fighting fire.

Broader Impacts

The broader impacts are very clear in this proposal. Fire information technology is critical for the effectiveness and safety of fire-fighting as a whole. Increasing the accessibility and usability of the fire data will mean that it can more quickly be used to update fire prediction models.

Summary Statement

Everything in the proposal seems to be excellent in quality. You mention data compression in your methods. Maybe you want to talk about the amount and size of the database to be analyzed? Also, maybe expand a bit on the validation methods. What features of the simulations will you compare? Also, for having adequate resources, maybe briefly say where you will get your historical data from.