

Case Summary

Case ID: CASE_ID

Objective: Brief objective, linking to theory/expected outcomes.

1 Assumptions

List assumptions concisely:

- Homogeneous fuel; no spotting; steady uniform wind.
- 2D structured grid, constant $\Delta x = \Delta y$.
- Boundary conditions: specify.

2 Simulation Setup

Key parameters and configuration choices (in `elmfire.data.in`). Cite the specific ELMFIRE config and any pre/post processing steps.

2.1 Input Data

Describe input rasters, constants, initial conditions.

2.2 Numerical Controls

Mesh resolution, Time step(CFL), level-set solver options, etc.

3 Expected Results and Reasoning

Derive the expected behavior (analytical solution or literature correlations). Include equations and parameter substitutions.

4 Acceptance Criteria

Define quantitative pass/fail criteria (e.g., $\text{RMSE} \leq 5\%$).

5 Results

Discussion with figures generated in the folder ‘figures’.

5.1 Key Metrics

Summarize metric values (auto-insert from JSON if desired in a later extension) and state Pass/Fail.

6 Discussion