

Comments and Suggestions for Authors

Authors presented results from the case study with a solar fan to dry a failing roof space of a building. The drying potential of ambient air during the day is analysed. The paper has a traditional structure, including problem description in the Introduction. Some sections should be revised. Some comment to improve the manuscript are given below:

The abstract is too long. The abstract should be a total of about 200 words maximum. **This has been done**

Add some quantitative results into Abstract in order to have a better view of your paper.

Because a number of topics are discussed:

- **Installing a fan to fix a moisture problem. This could be quantified, but it only relates to one roof.**
- **Benchmarking WUFI with this data, and highlighting the lengths required to get good agreement with measured data. See standard error query.**
- **Analysing the potential for extra daytime roofspace ventilation with existing houses.**

We feel that is hard to pick one or two quantitative results to meaningfully include into the abstract or conclusion. The main conclusion is that some assemblies are harder to model (and hence assess their durability) than others.

Only three keywords are used as the minimum. Probably you could revise and add some more keywords. **Two additional keywords added.**

Figure's numbering in the text should be consistent (line 135). **Corrected, reference removed at this point**

Accuracy should be provided for the measurement equipment. **Sensor accuracy was given in section 2.3. This has now been shifted to section 2.1. for clarity and consistency.**

Figure 1: some dimensions could be recommended. **Dimension added to Figure**

The title of Figure 1 could be shortened. **Caption shortened**

Figure 2 is not clear. It should be revised, add some legend. **Figure 2 revised and improved for clarity**

Figure 3 presents not results; it is more a part of the methodology (line 299). **We would probably prefer to keep it here, as it demonstrates the extensive mould growth, which can be considered a result of the study**

Revise title of Figure 5. Also, revise the title of y-axis. **True - Changed the y-axis title**

What is Roof space 2? (fig. 4., fig. 5). **"2" removed. We had two sensors in the roof space**

The quality of Fig. 6 is poor. The same comment for Fig. 7. **Indeed. Figures re-worked and improved**

Figure 6 should be discussed in deeper. Results must be discussed. **Results in Fig 6 are elaborated more in section 3.1. Connection is made between the observed mixing ratio peaks and the WUFI simulation (where the moisture flux in and out of the timber is observed).**

What is standard error or other value comparing modelling and measurement results?

Figure 13: it is difficult to understand it. Recommendation is to select other visualisation type. **We would like to keep this figure - Fig 13 is essentially identical to Fig 12 which is explained reasonably well we think. It is not supposed to focus on any detail of an individual dwelling but meant to illustrate that most dwellings follow a similar pattern with the different seasons also given.**

Add some quantitative results into Conclusions.

See query regarding abstract

Line 148-149: wind speed was taken at height of 10 m. What was the actual height for the case study? **Description of the location (close to sea-level) given in Section 2.**