

The authors should make the following (technical) corrections, after which the paper can be published:

We answer the editor comments point by point

L24: coupling fire-atmospheric --> fire-atmospheric coupling

Done

L39: there should be a space between problem and (Cardil...

Done

L88: have been used --> has been used

Done

L169: (video --> (video

Done

L216 and elsewhere: consider to write θ_v as θ_v (subscript v)

Done

L230: subsection heading should be in boldface

Done

L253 and elsewhere: should T_d and T_s not be written with subscripts?

Done

L263: RH. (Li ... --> RH (Li ...

Done

L267: height(Castellnou --> height (Castellnou

Done

L357: increase ...by 3 K is typed in purple, should be black

Done

L441: Figures S8.1 to S8.3 should not be highlighted text

Done

L445: using is also typed in purple

Done

L630: withastanded --> withstood

Done

L635: indraftinto --> indraft into

Done

L675: cores , --> cores,

Done

L723: level. (Figure 12). --> level (Figure 12).

Done

Figure 4: make clear in the figure (via the legend) which colours or linestyles indicate Td and Ts from the ICON model and which different colours/linestyles indicate Td and Ts from the sonde observations. There is ambiguity now in interpreting the figure.

We made the figure again, adding a clear legend in each plot

L33: clarify what "spotting" means

We clarify it by changing the text:

Old version:

Pyroconvection is a key driver in the escalation from wildfires to extreme wildfire events. While dry convection plumes effectively accelerate fire spread and produce long distance spotting , it is the development of moist pyroconvection plumes by the formation of pyrocumulus and pyrocumulonimbus (pyroCu/Cb, AMS, 2023) that dramatically intensifies fire behavior. Deep pyroCu/Cb events amplify dry pyroconvective plume dynamics through powerful indrafts and downdrafts, triggering chaotic surges in spread rate, increasing massive and long-range spotting on the head and flanks, and generating deep flames and vortices (McRae et al., 2015; Peterson et al., 2017)

New versión:

Pyroconvection is a key driver in the escalation from wildfires to extreme wildfire events. While dry convection plumes effectively accelerate fire spread , it is the development of moist pyroconvection plumes by the formation of pyrocumulus and pyrocumulonimbus (pyroCu/Cb, AMS, 2023) that dramatically intensifies fire behavior. Deep pyroCu/Cb events amplify dry pyroconvective plume dynamics through powerful indrafts and downdrafts, triggering chaotic surges in spread rate, increasing massive and long-range spotting (embers ignite new fires at a distance) on the head and flanks, and generating deep flames and vortices (McRae et al., 2015; Peterson et al., 2017).

We added the dataset in a repository: 10.5281/zenodo.17886250. Such a repository contains the in-plume and the ambient sondes following the ID in Table S1

We solved the supplementary materials formatting issues and modified the main text accordingly to reference the supplementary Figures correctly