

## Anonymous Referee #2

This paper presents new promising insights about downburst events. It is clearly organized and pleasant reading, therefore highly recommendable to its publication. However, some minor comments and suggestion are done to improve and clarify mostly the introduction section. These comments are listed below.

Thank you for your positive comments. All the required changes have been implemented in the text or commented otherwise.

Suggestion: minor changes

Page 1:

Line 18: Please change to read “10-min”, “1-h” and “10-h”.

Done.

Line 25: Please clarify to which it refers with “Their”.

The sentence has been changed to make it clearer.

Line 26: Change to read “A climatological condition. . .”.

Done.

Line 33: Change to read “These are synoptic. . .”.

Done.

Line 35: Please clarify to which it refers with “Their”.

The sentence has been changed to make it clearer.

Line 37: Please clarify to which it refers with “After over half century. . .”.

The sentence has been changed to make it clearer.

Page 2:

Line 4: Please consider adding information about that not all the thunderstorms produce intense radial outflows.

The sentence has been changed to clarify the aspect that strong downburst are possible but they are not that common.

Line 20: Change to read: “However, despite this huge amount of research, this matter. . .”.

Done.

Line 25: It is recommended adding some information about what an Aeolian event is.

We have substituted the term “Aeolian” with the more general term “meteorological”.

Page 3:

Line 6: It is recommended removing “however” from the sentence. It’s redundant.

Done.

Line 9: Change to read “. . .the City of Livorno, Italy, was selected. . .”

Done.

Line 11: Change to read “. . .all the meteorological data available in this area, which included model analyses, standard in-situ measurements. . .”.

Done.

Line 17 to 21: Please split the sentence in different ones, is too long.

Done.

Line 38 to 41: Please split the sentence in different ones and clarify.

We have partly rewritten this sentence and made it shorter. A new reference to Mohr et al. (2017) has been also added.

Page 4:

Line 16: Change to read “. . .of 31 anemometers that the current WP and WPS network is made up of, with h being their height. . .”

Done.

Page 5:

Line 35: The 1-s peak wind velocity should be also visible in the wind direction? Please clarify.

This sentence has been clarified.

Page 8:

Line 19: Change to read “. . . to develop a faster approach that integrates the data. . .”

Corrected, thank you.

Page 20:

Figure 1: Please provide credit.

Done. Picture (a) has been changed with another satellite image.

Page 22:

Figure: 3: Please provide credit.

Done.