We thank Giacomo Medici for the time spent reviewing the manuscript, enriching the discussion with this insightful community comment. We will address all the comments and explain how we intend to modify the manuscript following the commenter's suggestions. The commenter's comments are reported in black and the replies in blue, line numbers refer to the submitted version of the manuscript.

Lines 36-42. Add the fundamental control of fractures on contaminant transport, see references below:

- Medici, G., Munn, J.D., Parker, B.L. 2024. Delineating aquitard characteristics within a Silurian dolostone aquifer using high-density hydraulic head and fracture datasets. Hydrogeology Journal, 32(6), pp.1663-1691.

- Cherubini, C., 2008. A modeling approach for the study of contamination in a fractured aquifer. Geotechnical and geological engineering, 26, pp.519-533.

Done. Thank you for the references. We indeed missed this part of literature about fracture networks. We added "contaminant transport" at line 42:

Revised (from line 42):

contaminant transport (Medici et al., 2024; Cherubini, 2008)

Line 145. Mention the Apula Platform?

Apulian platform is already mentioned in the case study section

Line 145. Age of the limestones?

Done. Thanks for the comment. We added the age of the formation at line 166:

Original (lines 166-167):

The quarry is carved into the shallow marine intertidal limestones of the Calcare di Altamura Formation.

Revised:

The quarry is carved into the shallow marine intertidal limestones of the Calcare di Altamura Formation (Coniacian to Early Campanian, Panza et al., 2016).

Line 146. You need to clearly state the specific objectives of your DFN research by using numbers (e.g., i, ii, and iii).

The introduction has been revised in accordance with the reviewers' comments. We believe that the revised version more clearly conveys the scope and objectives of the paper.

Line 304. This sentence is not clear: "This means that different....". You need to specify what you mean by "this" to clarify.

Done. We thank the reviewer for the comment. Here is the revised version of the sentence:

Original (line 304):

This means that different conventions can be used for the sense of normal vectors...

Revised:

This symmetry implies that different conventions can be adopted for the sense of normal vectors...

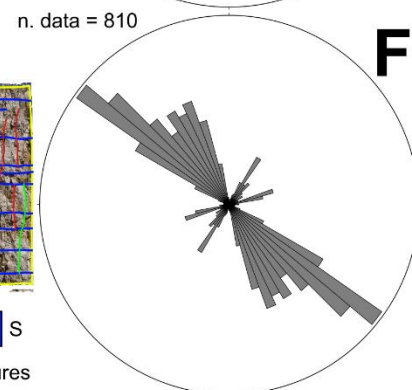Lines 849-864. You should add references. This is a discussion.
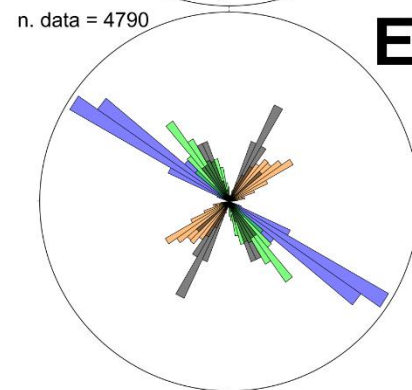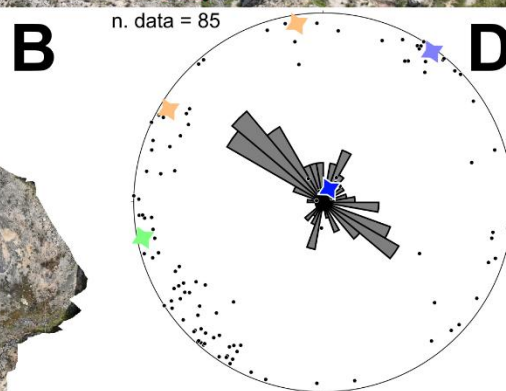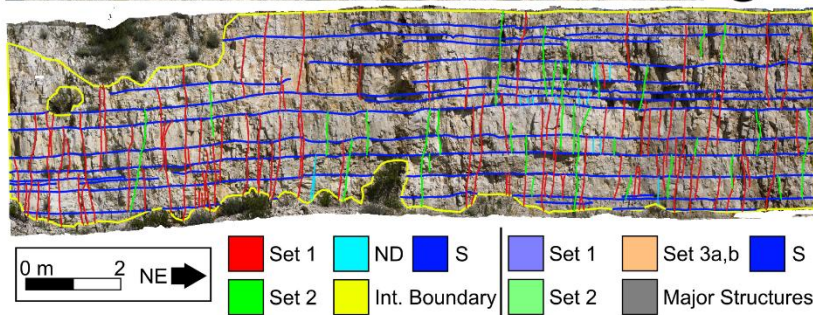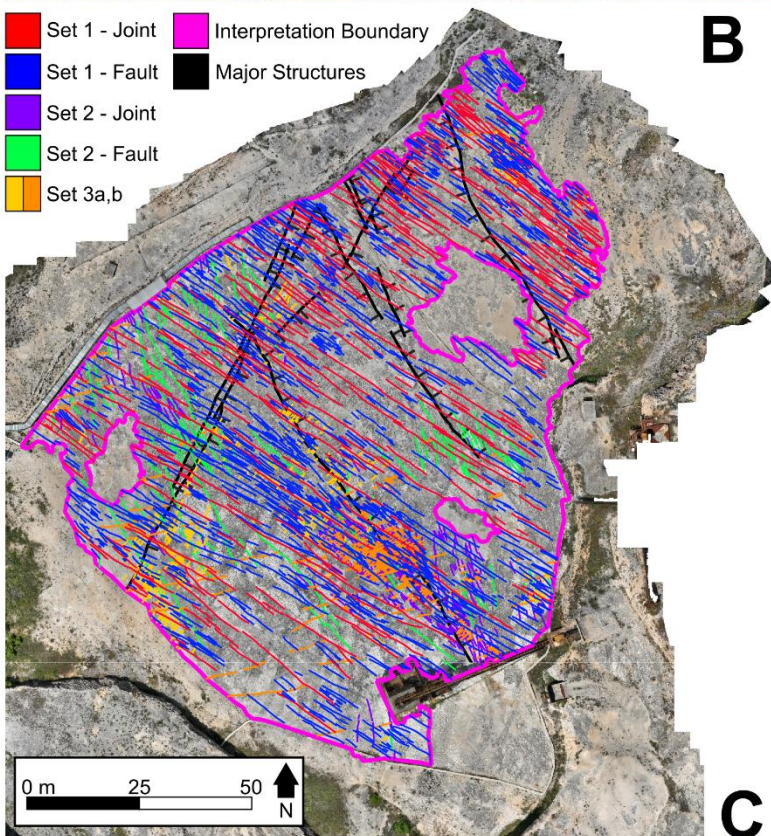
We thank the reviewer for the comment. Specific references are provided in the following sub sections of the discussion.

Line 1038. Insert the relevant papers suggested above on fractured aquifers.

Done.

Figure 2. How many rock discontinuities in the 3 stereonets? You need to add the number close to each rose diagram.

Done. Thank you, we added the number of data as suggested.

A

Pannonian Basin
Alps
Dinarides
Apennines
Adriatic Sea
Tirrenian Sea
Jonian Sea
Atlas

250 km

SW

0 m   50

B

Set 1 - Joint
Set 1 - Fault
Set 2 - Joint
Set 2 - Fault
Set 3a,b
Interpretation Boundary
Major Structures

0 m   25   50
N

D

n. data = 85

E

n. data = 4790

C

0 m   2   NE

Set 1   ND   S   Set 1   Set 3a,b   S
Set 2   Int. Boundary   Set 2   Major Structures

F

n. data = 810

Figures 3c and d. Do you need a spatial scale?

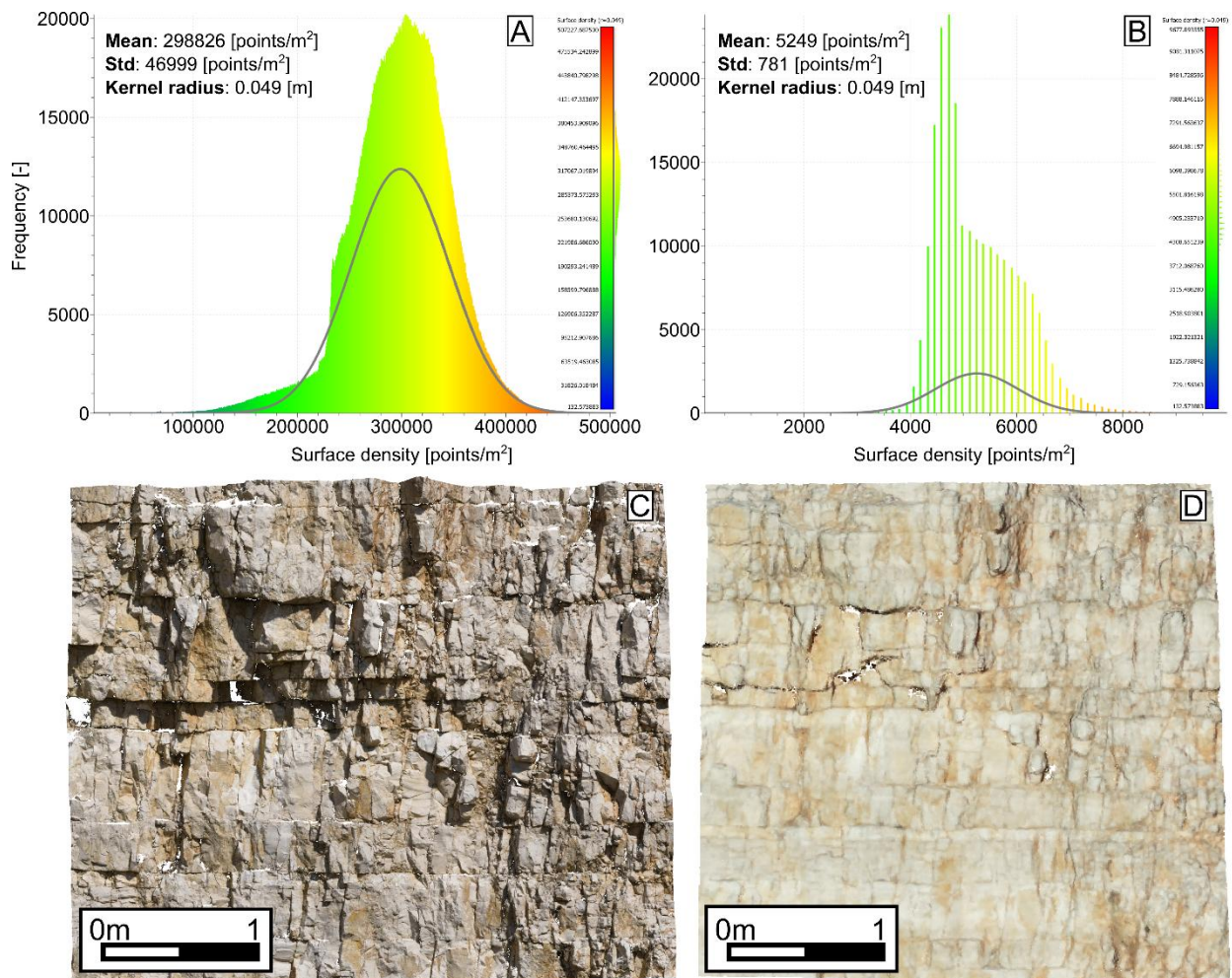**Done**. Thank you, we added the spatial scale in figure 3c and 3d

Figure 5. Also here number of fracture readings close to the stereonets.

Done. We added the number of data collected for every set in the caption (Steroplot B). Regarding stereoplot E the number of data is already specified in the result tables.

Original (lines 380-383):

Figure 5 Scheme of the semi-automatic workflow presented in Section 4. Point cloud colored based on dip direction with a HSV 380 colour scale. (A) Manual data collection on PC-DOM. (B) Manually collected orientation data during the preliminary orientation analysis. (C) Manual segmentation of the PC-DOM. (D) automatic feature detection with FACETS plugin. (E) Final result of the semi-automatic extraction workflow. Each fracture set is individually shown with contour lines.

Figure 5 Scheme of the semi-automatic workflow presented in Section 4. Point cloud colored based on dip direction with a HSV 380 colour scale. (A) Manual data collection on PC-DOM. (B) Manually collected orientation data during the preliminary orientation analysis. Number of data: Set 1 = 351, Set 1 = 256, S = 87, Set 3a = 74, Set 3b = 42 (C) Manual segmentation of the PC-DOM. (D) automatic feature detection with FACETS plugin. (E) Final result of the semi-automatic extraction workflow. Each fracture set is individually shown with contour lines.

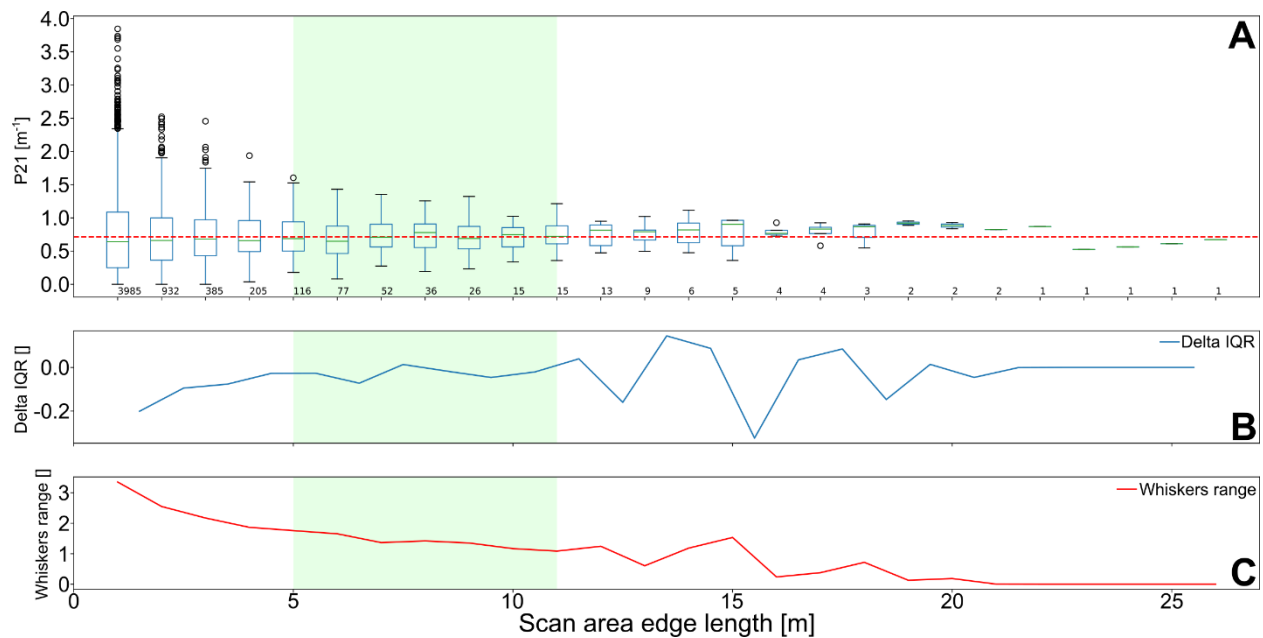Figure 14. Increase the size of the numbers on vertical and horizontal axes.

Done.

Figure 15a. Specify the number of points which are present in the graph.

Thank you for the comment. The number of points is already specified in the caption.