Answer to Reviewer 2:

The authors present a detailed description of the new version of the ARMON detector, including its metrological characterization. In particular, I appreciate the carefully done uncertainty budget.

The ms. is well structured and written, motivation and conclusions are clear.

Att. the commented ms. pdf. Most comments are trivial linguistic suggestions which the authors are free to accept or not. One perhaps more serious comment pertains to the simulation technique in sec. 3.1 / fig. 2b.

Overall a very interesting paper!

First of all, authors want to thank a lot the reviewer for his/her positive feedback. All comments and linguistic suggestions have been now included within the revised version manuscript. We have also modified the figure 3 and now ε_0 and $\varepsilon_0{}'$ are marked in order to help readers.

As for your question about the simulation:

Has the simulation performed in 2D or 3D? This makes a difference. If it was in 3D, then the picture is the projection of the 3D particle locations in the sphere onto a 2D disk, which would explain that density appears lower near the border. However - just by feeling! - I would expect higher apparent particle density near the centre.

The simulation was done in a 3D sphere with particles homogenously distributed within the all volume. In figures 2b and 2c, we have just represented "z" vs "x" (for all y's), and therefore there are more particles in the middle.

The figures below represent two "plotting versions" of the distribution of particles inside the sphere. On the left we have plotted "z" vs "x" as it appears in the manuscript, and on the right, we have represented the radius (distance to "z" axis, with negative values when x<0) instead of "x". We hope this clarification will help the reviewer.