Here are, in yellow, my answers to the Referees' and the Editor' comments. Having changed some text and some figures, the page and figure numbers commented by the Referee are now different, please see the marked text submitted: the major changes are there marked in yellow

(Editor)

I have done a first brief review and I am convinced that your manuscript contains relevant and interesting information for the community. I have however some suggestions to improve your manuscript before sending it out for review.

1. The Introduction is too short, and should better present the general context of this work/instrument, as well as previous work on similar topics, in order to better motivate the main objectives of this paper. For instance, Schlosser et al, 2017 (The Cryosphere) mentions precipitation measurements at Concordia. Grazioli et al, 2017 (The Cryosphere) present a field campaign conducted at Dumont d'Urville with various instruments dedicated to precipitation, among which a snowflake imager (MASC). The Hydrant observatory (Gorodestkaya et al., 2015, The Cryosphere) has a component related to precip, inland Antarctica. AWARE is also an important campaign in the Antarctic context (Lubin et al., 2020, BAMS).

I improved the introduction partly following the references suggested, and partially adding other relevant references. In fact, my work focus on the photographic observation and sizing of ice particles, a topic rarely frequented on the plateau.

2. The section "Image processing" remains too general and should provide more detailed information, for instance about the different steps and the associated parameters (how many, how their values were selected etc).

I added some details to this part, but basically it was already explained in its basic lines. In fact the image-processing uses 'standard' operators, shape parameters, etc. (I added some references for their definitions) and can be calculated the same way by anybody under any software environment. The number of pixels used in some operations, the sequence of operators udes, etc., are quite a personal choice.

3. The presentation of the CNN requires also more information: number of layers, neurons, activation, loss function etc are not mentioned, so a reader cannot reconstruct the proposed algorithm. The fact that the trained CNN does not over-fit is stated but not quantitatively supported (ex: learning curves).

I really welcomed this request by re-training the CNN and tuning the training parametrs.. I adjusted a few parameters (e.g. L2 regularization) and at present the CNN is slightly improved with respect to the first submission. Thank you! Confusion matrices are slightly different now. The learning curve is now shown.

4, I would suggest to add a few basic statistics about the collected data set along the years (occurrence of the different types of crystals, maybe per season) to illustrate the potential of this instrument and the data set.

As the entire statistics is a topic for a second paper (I used ICECAMERA data together with LIDAR and microwave radiometer data for a robust analysis of precipitation data. That's why I split my work into two papers: this one about the ICECAMERA instrument, the other on the statistical data analysis. Anyway, I used a subset of ICECAMERA data (2014-2017) in this paper, showing some relevant results and mainly in order to discuss the possible particle sublimation of small particles

I will be happy to evaluate an updated version of this manuscript.

I spontaneously added a section about my simulation of the sublimation of ice particles, as it occur at the surface of ICE-CAMERA. I hope this will clarify the limits of this technique, that were quite unclear in the previous version

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REFEREE 1:

Major remarks

1. As mentioned, the topic fits well the scope of AMT. For this particular journal a higher level of detail on the instrument itself (see also minor remarks below) is needed. I believe that the author has both data or simulation tools available to better characterize the sampling uncertainties associated to ICE-CAMERA. I would like for example to see statistics on the number of particles collected according to the wind speed (I see data are available in Fig. 8) or according to humidity/dew point which influences sublimation. The author provides interesting hints about sublimation time for individual particles in section1.6.2. The author may apply similar techniques over a populationof particles, for example assuming a PSD (particle size distribution) and repeat the simulations multiple times for multiple PSDs and other parameters temperature for example). A first approximation could be to use a constant PSD/snowfall intensity over the measurement period or to elaborate more realistic scenarios.This is only an idea, and the evaluation could certainly be done in a different way but the objective is the following: by extending the simulation to a population of particles, something more could be said in terms of (theoretical) catching efficiency of the instrument, a key aspect for the readership of this journal.

I particularly welcomed this comment by adding new simulations for an initially uniform PSD of sublimating spheroidal particles. I also added some discussion about the attachment and wind-removal of particles on the instrument window. Some new pictures, based on the ICE-CAMERA dataset , were added for a discussion about effects of wind and temperature on the collection of particles.

2. It was not clear if the main focus of the paper is the instrument or the CNN-based classification. I recommend to clarify it. In either case the level of detail should be increased (see my other comments). My assumption was that the main target is the instrument so I did not comment in much detail about the CNN. In fact, the image-processing and the CNN-classifier are the heart of the machine, the scanner is just its 'arm'. They are both described, I hope better now, in the text

3. The literature overview and the current state of knowledge about ice crystal habits is not enough documented and detailed in the introduction and more in general in the text. See minor remarks below. I would like to see the instrument and its capabilities better put into the context of current state of research and the known research gaps.

I added a long text in the introduction, trying to explain how this type of instrument can be useful and interact with other techniques (CloudSat, etc) , on the plateau

4. Data access. The instrument is collecting data since 2014. So there are now 7 or 8 years of unique data collected at the Concordia station and not yet available. The data are the real added value of each innovative instrument. It is crucial in my opinion that as much data as as possible is made available, behind a DOI to allow for citation and recognition, at the time this paper will be published. I see it as a necessary complement to allow the readers to understand the quality and the scientific impact of the data produced by the instrument. Platforms as Zenodo, just to cite a common choice, are easy and user friendly and they allow to obtain a DOI and a citation for the dataset.

I welcomed the suggestion: I submitted to Zenodo the CNN and its training database. The ICECAMERA database is the core of a second paper to be submitted in Copernicus. The new paper involves other instruments and other authors, and therefore I prefer to publish not the entire database, for the moment.

Minor remarks

1. In the introduction or somewhere in the text I would recommend to take the time to explain all the difficulties and possible failures associated to the long term operation of an instrument in such an environment. This is briefly mentioned through the text but I am convinced that the average reader would not get the idea of the actual and maybe less known challenges: breaking of rubber parts, (low) humidity issues in heated environments, etc.

   I added a section about these issues at the end of the paper

2. L14-19, L22-24: some references should be added to backup these scientific statements.

I did my best

2. L29: 90 um ? 90 µm. Same through the text

   corrected

4. L34: change forms to shapes

corrected

5. L79: I believe the scanning principle should be briefly introduced before this point. Here we read after an entire scan, but we actually do not know yet what a scan exactly is, for this instrument.

I added some sentences and a reference

6. Fig. 3: I found this schematics not really informative. I would recommend either to use pictures of the actual parts of the instrument (a qualitative but illustrative way) or to provide a higher detail electrical/ communication schematics, even as Appendix material.

In fact, I changed the figure with a more communicative one. I realize in this moment the quality of the picture is not the best, I'll send a better quality copy after acceptance of the paper

7. L139: what is the expected lifetime of the LEDs?

Sorry I have no answer for this question, the manufacturer is not explicit in this sense

8. L162: add a reference or a statement about the expected maximum height of blowing snow in Concordia.

added

9. L177 (and related section):

• Could you show data evidence of partial sublimation bias in the collected images? A caveat that you mention also later on in the manuscript.

• The role of relative humidity should be discussed here. If relative humidity is higher, sublimation rate will be lower.

Correct at 'high' air temperatures (-30°C). At low temperatures (-70°C) RH is secondary. This discussion was added in the text

10. Fig 8: I see some clear patterns / clusters / populations in the data. I recommend to try to explain why such patterns appear. I suspect they are related to individual events/seasons, but they may be related to more interesting physical aspects or technical issues. Also, I would try to produce similar scatterplots but including relative humidity, which should be routinely available in Concordia.

Fig.8 was deleted because it was confusing, and I could not analyze it statistically because housekeeping data were non collected continuously (g.e. they were not collected during the scan).

11. L294 (and related section): a flow-chart could help to present the processing steps rather than a bullet list. The text of this section should be edited to be descriptive rather than a simple enumeration of steps.

I added a specific flow-chart figure

12. L331: how often does this situation occur?

Added a sentence

13. L352: Why this approach end up to be unreliable for your instrument?

I didn't comment this because using only shape factors for crystal classification was just a mess, not only for ice-camera, but for science in general. Fortunately ,CNN were invented…

14. L363: does this imply that the images collected have to be resized?(down or upscaled?) Is the resolution of the instrument constant?

Yes, ice-crystal images are re-scaled but only for the CNN classifier. Measurements are taken on the original image

15. Fig 14: can spheroidal particles actually be supercooled liquid water? It would be good to have some size reference in this image.

I cannot distinguish solid from liquid, but the presence of supercooled water is increasing in Concordia, some collagues are publishing about this. I don't know the fate of a supercooled droplet when she hits the window of icecamera. I don't know if freezes immediately ..like on our mountain trees, and I cannot test this

16. L402: about trigonal plates. This statement here seems to be contradicted by the results of Fig. 17, and in fact this is highlighted in L471.I would either remove the statement here or remove this class from all the analysis of the paper.

I changed the training dataset for the (new) CNN and now trigonal plates are finally detected

17. L407: a good idea actually.

Thanks!

18. L560-561: I maybe missed it, but are there statistics on the total amount of data collected since the instrument is operational?

I added a figure with an overview of the number of collected particles from 2004 to 2021

19. L565: I would recommend to clarify explicitly the content of the governmental policies mentioned here. Nowadays most of the institutions promote FAIR policies (https://www.go-fair.org/fair-principles/), so thisCode and Data availability statement may be sounding strange for some readers. Secondly, only the CNN and a test dataset is mentioned here.The paper, as the title suggests, is not about the CNN but about the instrument. I would expect to see a data statement about access to the data collected so far by the instruments and maybe some link to relevant technical documentation of the instrument itself.

I finally published in Zenodo the CNN and the ice-camera dataset used for the training+validation+test of it. The ref. is in the text of the new verion of the paper. As the topic of the paper is the instrument and its software, I don't release for the moment the entire data set. The data set is going to be used in a second Copernicus paper with other co-authors and other instruments involved

20. Plot quality: the quality of some plots seems very low (for exampleFig. 5)

The figure 5was refurbished. Most figures are vector figures (MATLAB) and can be modified. I realize in this moment that fig.3 is still low quality, I'll produce it in high resolution as soon as the paper will be accepted.

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REFEREE 2

1)Abstract is not adequate.

I sligthly Changed the abstract

2) L77-78: “The principle is simple: at low temperatures and low wind speeds (conditions encountered at DC), precipitation falling over a flat glass accumulates with time and remains frozen until it sublimates, …”

Language should be improved, but also the collection and issues with collection efficiency should be discussed here or later in the paper. Particles deposit on the DS, but what makes them stay there (“remains frozen”)? What are the effects of wind both during collection (deposition) and after collection (can particles be removed by wind)? Could any biases be introduced based on wind effects or other effects depending on size or shape?

A discussion about 'what makes them stay there ' was added. I added a discussion about the wind-speed threshold for wind drift (and thus for the removal of particles from the DS) based on specific Dome-C results. I Added a discussion on the viscous boundary-layer on the surface of icecamera

3)1.2 Camera/1.3 Focusing and 2.1.2 Limitations:

Say something about resolution (resolving power). Pixel size corresponds to 7 um, but resolution does not seem to allow detecting particles smaller than 70um (70um, not 60um as you state in L333, is equivalent to 40000um2).

Corrected

How much does the focus change between calibrations? How long does focus calibration take? (Could it be done before each scan instead of 6h intervals?)

Corrected: The typical focus adjustment between two calibration if between 0 and ±0.25 mm. The calibration takes approximately 5 minutes and for this reason it is not performed after each measurement in order to spare PC resources for data processing.

Consider including a discussion of accuracy of provided particle sizes.

A sentence about the calibration of the actual pixel size on the images was added

4)Thermal control:

L168-170: “The NI-Labview software controls the internal temperature of ICE-CAMERA above -40°C, and the DS temperature always under -5°C (“Heater 1” in Fig.3).”

Is this always possible?

Specify if this is general heating of ICE CAMERA or specific for sublimation (then refer to Sect 1.6.1).

Corrected: These conditions are maintained all-year round in all phases of the measurement cycle

Unclear where Heater 1 and 2 are.

Heater 1 and 2 swapped in Fig 3.

Corrected

L179-181: “An indoor test (Fig.7), showed a heating of rate of 2.5°C min-1, and a cooling rate of 1 °C min-1. The cooling rate is almost 50% of the heating rate just due to the sandwich heating-glass structure, with the heating layer at the middle”

“…just due to the sandwich...”: is this passive cooling, what is "heating layer at the middle"?

Corrected: I also introduced a description of the ’sandwich’ and its thermal characteristics

Is the indoor test really relevant here? You then report the heating/cooling rates outside. So, Fig7 could maybe be replaced with a cycle outside.

I prefer to keep this picture, as in steady-air the same thermal cycle (with just a different offset temperature) occurs outside, as the thermal constants of the instrument are always the same.

In Sect 1.5 you mentioned about heated air between glass sheets (DS and second sheet) and keeping DS frost free; is that the actual heating of the DS?

I Tried to clarify this point

Detail: how much air pumped inside and through the space between the windows?

Done: The outside air is pumped (through a 3.5 l/m miniature pump) for five minutes every hour

Distance between glass sheets?

Corrected: 13 mm

L192: “Heating is anyway interrupted if the DS temperature exceeds -5°C…”

How often does this happen?

Only in warmest summer days

5)Deposition/scan/sublimation cycle:

The cycle of deposition, scan, and sublimation is not properly explained in detail. The reader gets the details somewhere between the lines.

Corrected: better described the cycle

L190-192: "…sublimation of the majority of particles (D<1000 um) is complete within 20 minutes, with just a few big (D>>1 000 um) grains still present after 30 minutes.

After these tests, the heating time was set at 10 min."

"D" is not defined.

Corrected

"within 20 minutes": 20min after the 10 min heating period (after 10min heating was turned off)?

Corrected

"few big grains" Can you be more specific? After 30 min grains were larger than 1mm? Or ice particles that original had D larger than about XY mm?

Corrected: (initial diameter>>1000 um)

Then you continue to discuss the cycle and for how long the DS is "sensitive to falling ice particles" and that this time is variable depending on conditions and that there is an uncertainty associated with this.

What is in L195 the "evaporative removal of particles during the accumulation period"? Is this wind related; why evaporative now and not related to sublimation; what is accumulation period".

corrected

All these details should be explained more clearly and then the issues discussed clearly too. In particular, make it clear that the deposition phase is not clearly defined (only its end due to the scan). I think I have not seen how long a scan takes. Would scanning more often be a way to study sublimation issues related to smaller particles (100 um)? Would could then see how they sublimate in consecutive scans.

Corrected:
evaporative→sublimation
accumulation period→ 'Deposition period' (now defined)
Scan duration-> 2 minutes

-Would scanning more often be a way to study sublimation issues related to smaller particles (100 um)? Would could then see how they sublimate in consecutive scans.

This is possible, and can be planned (in summer), as a test ,on a few target particles, but in this specific instrument it cannot be done (and was not done) routinely, because the image processing of a typical population of hundreds ice particles takes 10 minutes or more. Small DD particles such as small (<100um) plates, the most interesting in a sublimation test, are very scarce in summer. Moreover, in winter the instrument works unattended, and experiments of this type are virtually impossible.

6)Fig 8:

What measurements does the figure show? For one 1h cycle, how many temperature measurements are shown?

Fig 8 left) at what wind speed?

+25degC at still air, +20degC at 8m/s: are those temperatures averages, median, or ? (I can see a large range, maybe 20degC to 35degC.)

Wide spread in blue; two regions (sublim and deposition phases)?

Left: better also show dT instead of DS temperature.

Could Fig8 be separated in one fig. only the deposition periods of 20 min prior to scan, one for after/during sublimation heating? This could be clearer instead of heaving heated and not heated temperatures mixed in one figure.

The figure was in fact confusing, and was totally removed

7)Sect 1.6.2 Sublimation of ice particles

You discuss sublimation, both unwanted and wanted sublimation here. When saying “negative effect” you refer to the unwanted sublimation. Be careful to keep clarity in this section.

Corrected

L214: “as DS ice is always super-saturated relative to the surrounding air”

Wrong as it is stated. It is also unclear what "DS ice” refers to.

At the heated DS the equil. vap. pressure will be higher; thus the surrounding air will have a lower RH at the heated DS and ice on the DS will experience sub-saturated conditions.

L215-216: “the vapour pressure of ice on the DS relative to the surrounding air (saturated relative to ice…”

Wrongly or unclearly stated: "the vapour pressure of ice on the DS..." should be something like:

"the vapour pressure saturated relative to ice at the DS temperature".

Fig 9: Why show this ratio (e0ice(T_DS)/e0ice(T_amb))?

Removed the discussion above, as it was confusing. Thanks!

More intersting would be the inverse (e0ice(T_amb)/e0ice(T_DS)), i.e. RHice at DS if surrounding air is at RHice=100%. For dT=5K this would range between 45% at -80degC to 65% at -10degC. It shows the sub-saturation. Fig 9 is not further discussed or used later on. If you want to keep it, I suggest to plot inverse.

L214…..Fig.9 and its discussion were eliminated, as unnecessary: the simulations of sublimation contain the same information and lead to more readable results.

You use over saturation, oversaturation, over-saturation, and super-saturation. Only use one term for clarity, I would suggest super-saturation.

Corrected ,adopting super-saturation

L228: “growth rate of the facial area” Growth perpendicular to facets?

Corrected

L229-230: Unclear what critical super-saturation and critical temperature are.

Sentence removed

L231 “0.05% to 5% under-saturation”. How is “under-saturation” defined here?

Corrected in ‘sub-saturation’

L234 “The steady-state shape of the sublimating crystal depends”

Unless explained or defined, it seems contradicting: a sublimating particle is not in steady state.

Text was modified and ‘steady-state shape’ removed

L246-247 “The simulations assume the completion of preliminary sublimation of points and edges of the particle”

Unclear language (preliminary, points, edges).

Changed: The simulations assume that the preliminary sublimation of the high-curvature parts of the particle was already completed

L252 “still evaporate” Unclear what the “still” refers to => “sublimate”.

Corrected

L253 “could survive along the heating period” => “will survive longer than the heating period”?

corrected

L259: Meaning of "After the sublimation period, DS is exposed to falling crystals."?

DS is always exposed. Particles depositing during the sublimation period may partially sublimate and then be included in "collected" particles. (see comments for Deposition/scan/sublimation cycle above)

Corrected:During the deposition period, the collected particles also undergo sublimation, although this is much slower than during the sublimation period.

Fig11: Do you have any experimental data on sublimation times for actual particles (similar to your spheroids)? That would help to set your statement in L270 in relation, or that you only see few particles with partial sublimation.

This experiment is possible, and can be planned (in summer) on a few particles, but in this specific instrument cannot be done routinely. In winter, the instrument works unattended and experiments of this type are almost impossible. Moreover, small DD particles such as small (<100um) plates are very scarce in summer.

8)Sect. 2.1.2

1) Specify better: 2000 per scan?
yes, corrected

2) Explain what you mean with “By default”. Relate to resolution (see 3) above).

Corrected

3) Specify the segmentation error (particles are overlapping?). How can a particle be counted twice (double counting)? What is 12% in your worst case (overlapping particles account for 12% of particles in one scan?)?

Corrected : 12% of particles in one scan. More details were added

4) Two issues are brought up together but are rather two limitations that should be listed/discussed separately. It is unclear how and on what basis these spheroidal particles are disregarded.

Corrected

9)Sect 2.2.2 Training dataset

I would like to see a better description of the various datasets.

What is the “image dataset” (L437)? How many images; from what time period?

Changed: period 2014-2017. How have these images been selected out of all available images? Randomly or by some other selection criteria?

Changed the sentence

This image dataset is then apparently split in 10% validation dataset and 90% training dataset (25705 images).

What about a testing dataset?

Say how testing (see Sect 3) was performed, in Sect 2.2.2 or Sect 3 for example. How many and which particles were used to test the CNN after training is complete, i.e. to produce the results shown in Sect 3?

You are perfectly right: for the testing I used a testing data set including approximately 50% of training images and 50% of unused images. This 'error' was corrected in the new version: now 80% of the whole dataset used for the CNN training was used as training data set, 10% for validation data set, 10% for testing data set. Moreover, I increased the number of training particles for most classes. Trigonal plates are rare, and their number in the training dataset was thus artificially augmented by duplicating the training images for this class, in order to avoid their absence inside most of the small (64-images) training mini-batches. Image augmentation during training contributes to a partial spatial randomization of this special class.

I added information about training, testing and validating data sets. The training dataset, together with the CNN, was published on Zenodo.

Provide more details about the augmentation: To what size is the original training dataset of 25705 images increased after augmentation? Each class augmented the same (number of images increased by same factor)?

There is no formal answer to this question: Image augmentation is introduced randomly (within the fixed limits and transformation types) to each image of each mini-batch used during the CNN training. Each mini-batch represents a random sample of the data base.

10)Biases during training

The number in each class is different. This can generate biases in the CNN, please comment. In particular, I think that part of the low performance for trig plates is due to the fact that this is the smallest class in the training dataset.

I increased the number of training particles for most classes in order to better equalize their numbers. Trigonal plates are rare, and their number in the training dataset was thus artificially augmented by duplicating the training images for this class, in order to avoid their absence inside the small (64-images) training mini-batches. Image augmentation during training contributes to a partial spatial randomization of this special class. The resulting CNN is more performant, with 90% classification accuracy of the training data set just after 3 epochs, compared with 83% (after 5 epochs) of the first version of the paper. The accuracy in the detection of trigonal plates is now reasonable 86% (on training data set).

11)Data

A few example images in the full resolution should be included in the paper. This will help when discussing resolution and sizing accuracy (see Major point 3) above).

Fig.16 already shows examples of good quality ICE-CAMERA images

Reconsider if you interpreted government policies with respect to sharing data correctly. It would be useful to share the whole image dataset. Should that not be possible, then please share at least a sample dataset.

The training dataset, together with the CNN, was published on Zenodo.

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Minor comments

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Consistency with terminology and spelling in various places.

E.g.

GoogLeNet, Dataset

Corrected both

I would expect that Introduction is Sect 1.

Sect 2 is on instrument; 2.1 Overview (instead of 1.1)....

Corrected

L69: “In this work, the term ‘precipitation' will include both diamond dust and”

Should perhaps refer to “precipitating diamond dust”.

Corrected

“cooling speed” => “cooling rate”

Corrected

“eventual” => “occasional” (2 x)

Corrected

“deposition window” => “DS”

Corrected

“By the way” is not good English for an article.

corrected

Fig 12: “Reg.growed” Use correct label and be consistent with text.

corrected

Fig 13: Remove title “ICE-CAMERA: Summary of detected grains…”

corrected

Be consistent: what is synthesis image?

summary-image,synthesis image,mosaic, summary image

corrected

L325 “measures” is not a noun.

corrected

L325 and L83: specify what weather data are.

Added a sentence

L384 “hexagonal prism”

I would call this class "long column" or something else with "column"

Fig 14 “compact prism” should be “compact column” (as in L395).

corrected

L401: Why refer to “insoluble”?

corrected

L451 “3.1 Precision of the classifier” should be “3.1 Accuracy of the classifier”

corrected

L460 “mistaken” = “mistaken with each other”

corrected

L 462 “Compact columns are misclassified almost 20%”

I read 15.4% in the bottom row, not 20%.

A new discussion about the (updated) CNN results was written

L473-474 “The three-dimensional structure of the ice particles is lost in the ICE-CAMERA images, so that some thick ice forms such as C4a, P1b, G3b, CP1a, etc. (Kikuchi et al, 2013), if any, are likely to be misclassified”

Be a bit more specific (or give at least one example).

is quite complicated for me to find ‘clear’ examples in my database

L498-499

“The classifier was used…” You are showing results of the classifier but then also of the "image measurements" for the resulting classes.

corrected

Is the Jan-Feb 2017 period not part of the image dataset used for training/validation and testing?

The image data set used for training/validation includes images from 2014 to 2017 (so, also jan-feb 2017). But just a random sample of the whole image data set was used for training/testing, and only a few images from the Jan-Feb 2017 period were thus used in training/validation

L506 “maximum whisker length is here equal to the interquartile” seems wrong.

Total box height is equal to the interquartile range. What do the whisker lengths indicate?

Corrected, my mistake! Lower and upper whiskers mark one interquartile below the 25th percentile and one interquartile above the 75th percentile, respectively

L507 “some relevant differences” seems to refer to one relevant difference.

corrected

L532 "diameter of the circle equivalent to the bounding box"

definition is ambiguous:

"diameter of the circle with the same area as the bounding box

Similarly, in L533: ambiguous definition.

corrected

Fig 23: Suggestion: put (as whiskers only) on scatter plot Feret-box vs projected-surface equiv. diameters. In that way direct visual comparison is possible.

done

L543-544 “Commercial or customized instruments do not have this flexibility, more typical of old-style handcrafted products”

Purpose of this comparison, what instruments are you comparing to?

removed

L548 “convolutive” => “convolutional”

corrected

L552 “precisely” Do you mean precise here, or accurate?

Anyway, neither of the two was discussed.

removed

See Major point 3) above.

Concluding remarks on potential improvements (in particular with respect to the sublimation problem). Use of ICE-CAMERA in other environments (not Antarctica)?

added in the conclusions