

Review of „Interlaboratory comparison of Continuous Flow Analysis (CFA) Systems for High-Resolution Water Isotope Measurements in Ice Cores” by Agnese Petteni et al.

### Comments:

Thank you for the revised manuscript, and my apologies for the slow review.

The revised work has been significantly improved, and is now easier to read. However, there are still few points that I want to raise before accepting it:

(A) ISP-UNIVE low humidity level:

Ok, I agree that the accuracy of the measurement (i.e. standard deviation) calculated via the Allan variances is fully comparable, ‘independently’ of the water vapor level. But I am still concerned by the mean value itself (as I mentioned in my first revision, the previous Fig.3 (now Fig.5) shows a clear trend towards higher mean values, showing well that the result will be different between 8000 and 20’000ppm).

In section 3.4 “Discrete vs Continuous Data”, lines 360 to 362, the authors state removing data at 1200 ppm, and retaining them at 7850 ppm. I would suggest to remove these 2 intervals, and rephrase the section accordingly.

(B) A part from this remaining major concern, here are a few minor points:

- Line 226: “This is because, at these...” please rephrase.
- Lines 279 – 281: “ Picarro 2140 ... also conducted at lower humidity”. please also rephrase.
- Line 300: “For IGE setup, we relied on above tests confirmed the findings of Gkinis”. Please rephrase
- Lines 320, 326: If I get it right, Tab. B1 should be **Table C1**
- Figure 6: On panel b), the change of slope is clearly occurring at 200s, normalized time. It would be good and consistent to have correspondence with panel a).
- Line 357: please insert a reference for the Kruskal-Wallis non-parametric ANOVA test.
- Line 362: 7850ppm, slightly below the typical working conditions. As the typical working conditions stated by the manufacturer are around 20’000ppm, this sentence made me smile, before raising my concerns again. cf comment (A).
- Line 401: Gaussian kernel-based approach. This also requires a reference.
- Line 504: “.. allowing the climate signal to be interpreted by reconstructing it at the highest retrievable resolution”  
The highest retrievable resolution?? Higher than reconstructing climate signals by cutting/analyzing discrete samples at 1 mm resolution?? Please rephrase.