

## **Answer to comments**

Dear Editor,

Thank you for the comments, which helped us to improve our manuscript.

We have now checked the text, corrected a few parts and improved the following figures: 2, 6, 8, 9, 11, 15. In particular, sea ice time series in figure 2 have been completely changed, and Figure 6 already has different symbols (square and dots) for POC and DOC other than different colors (Red and Blue).

Best regards,

Dr. Manuel Bensi