



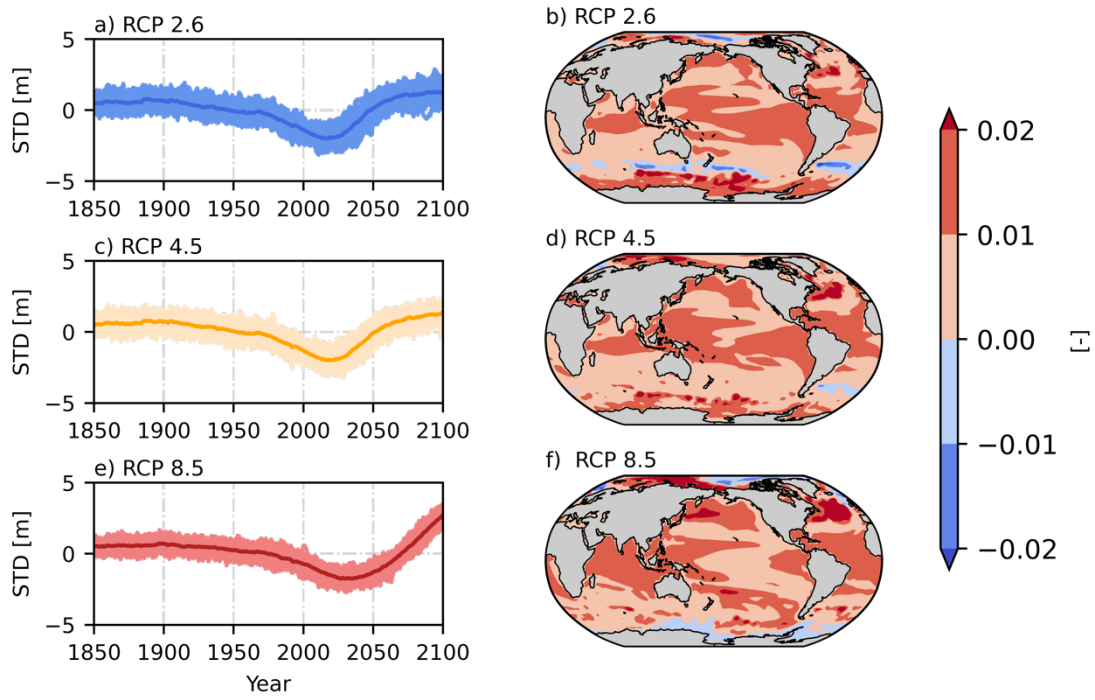
*Supplement of*

## **Improving statistical projections of ocean dynamic sea-level change using pattern recognition techniques**

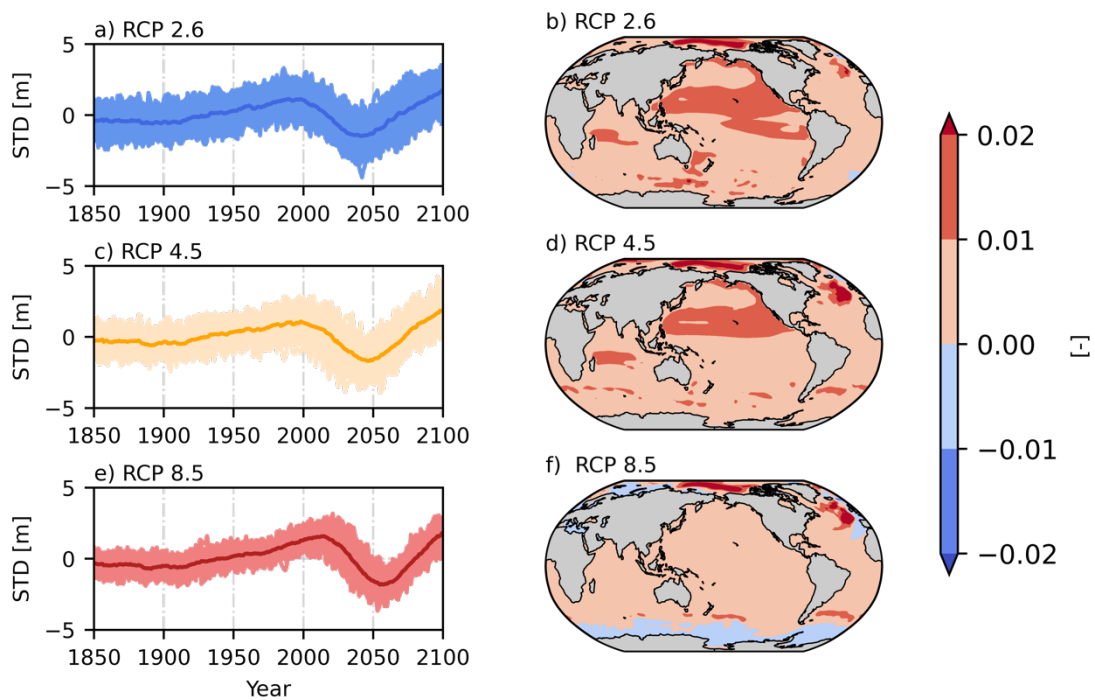
**Víctor Malagón-Santos et al.**

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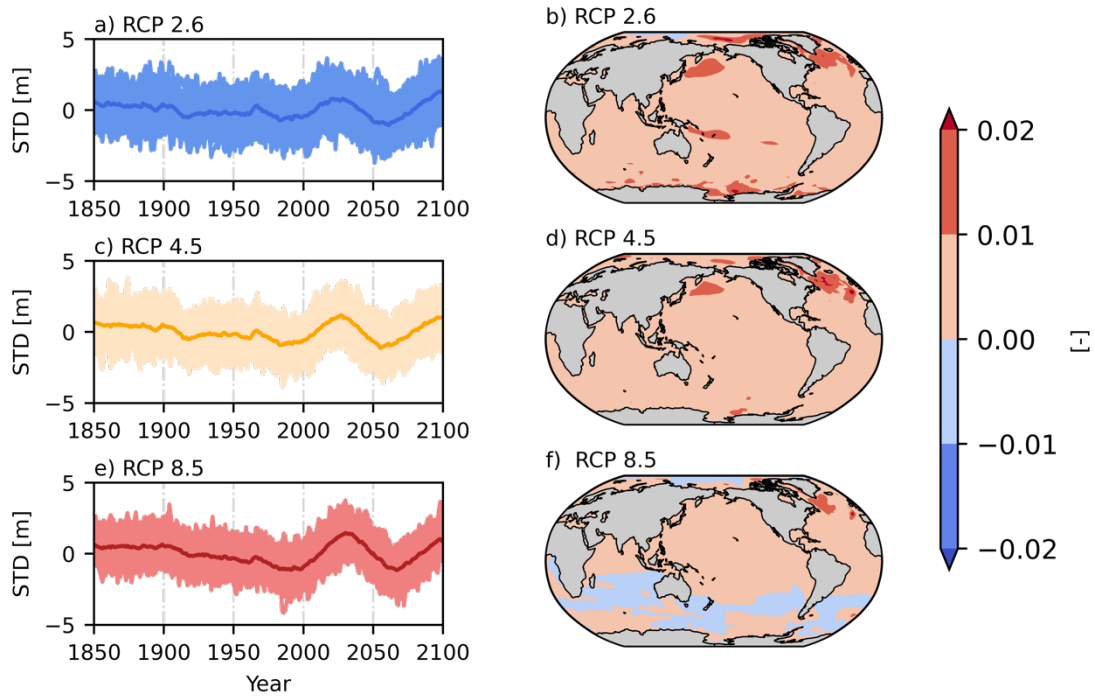
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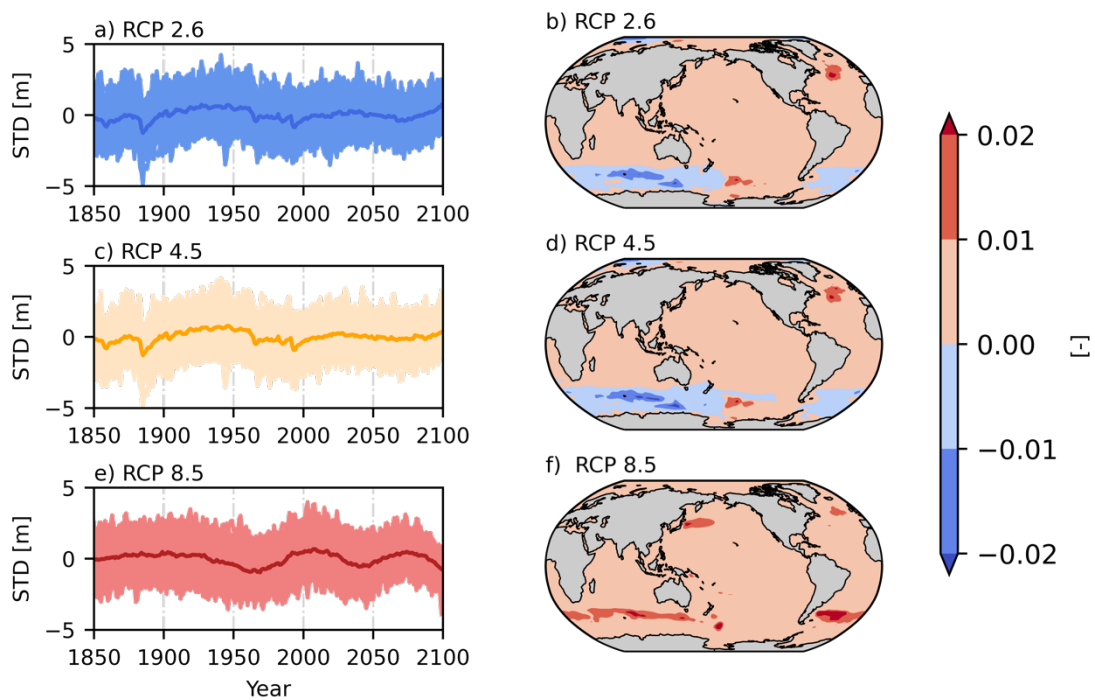
**Figure S1:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 2 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



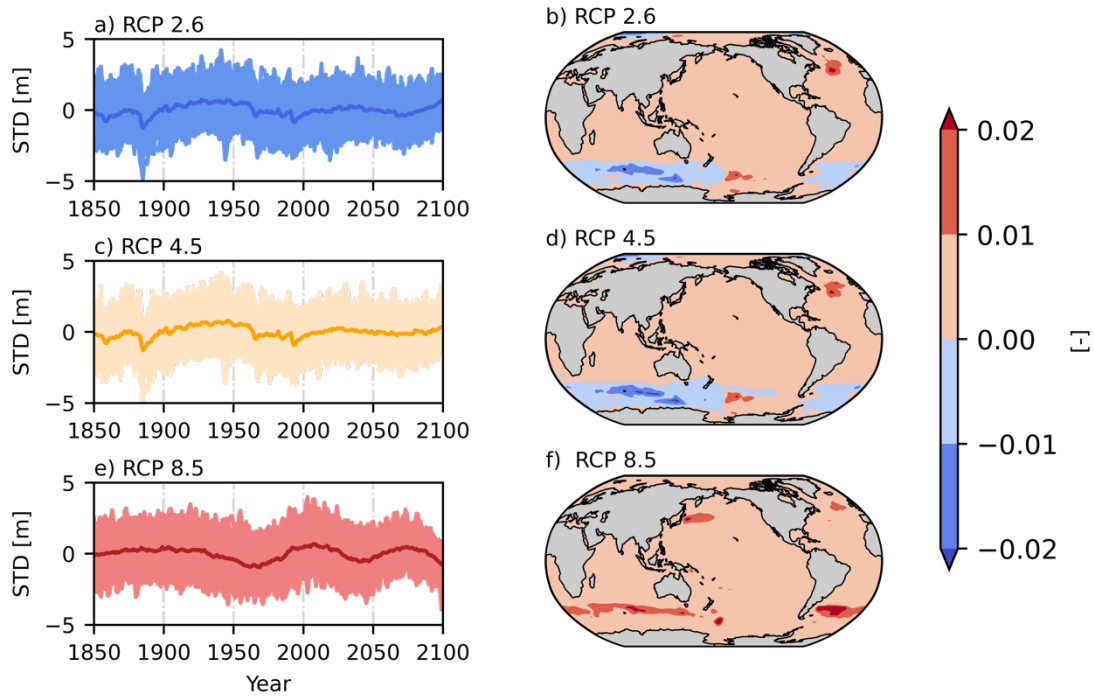
**Figure S2:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 3 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



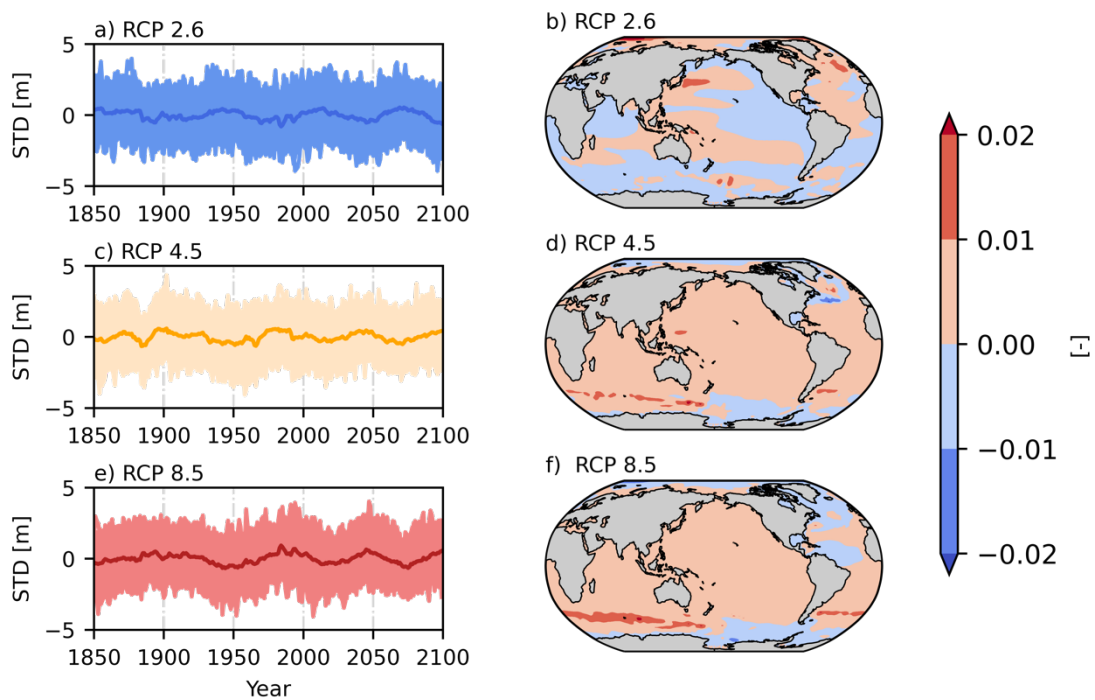
**Figure S3:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 4 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



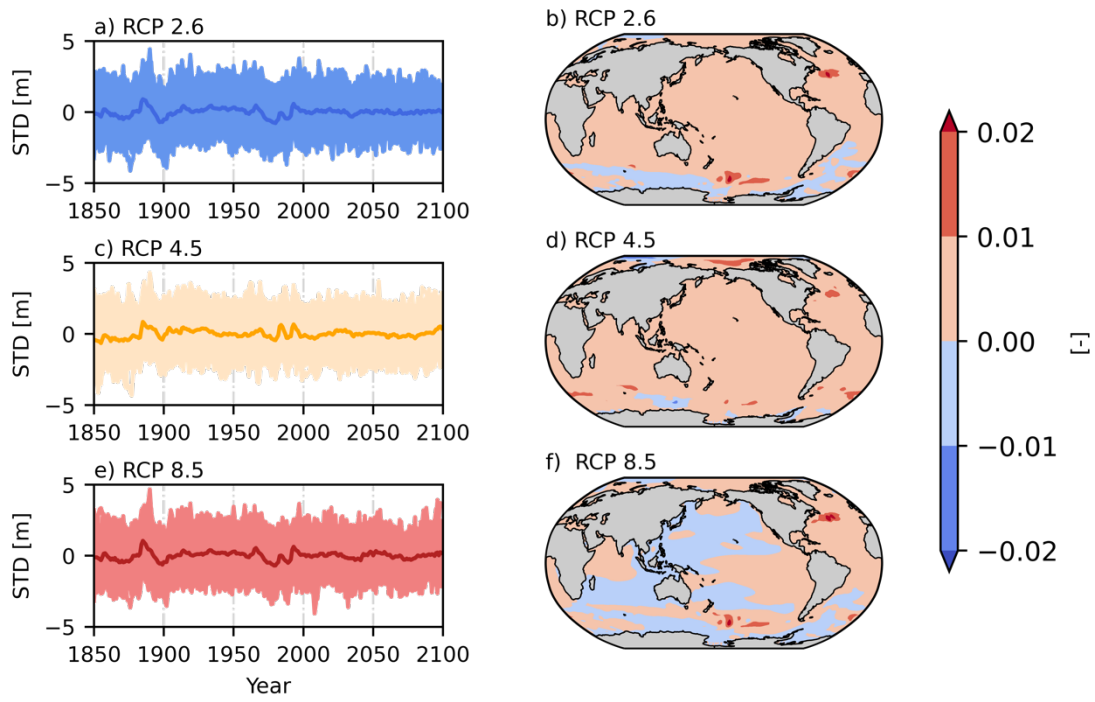
**Figure S4:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 5 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



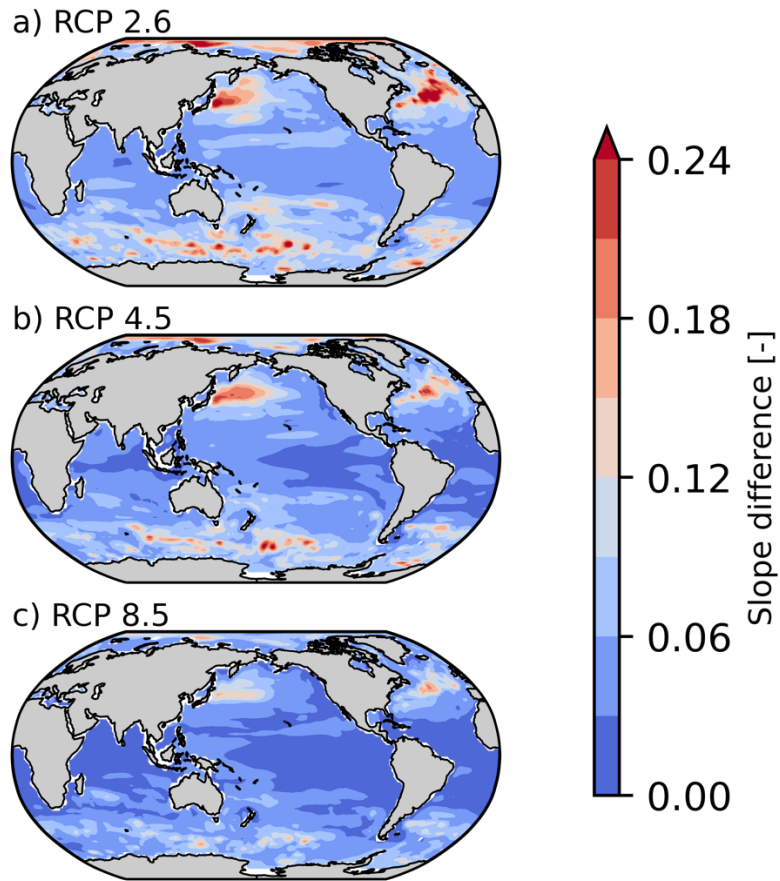
**Figure S5:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 6 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



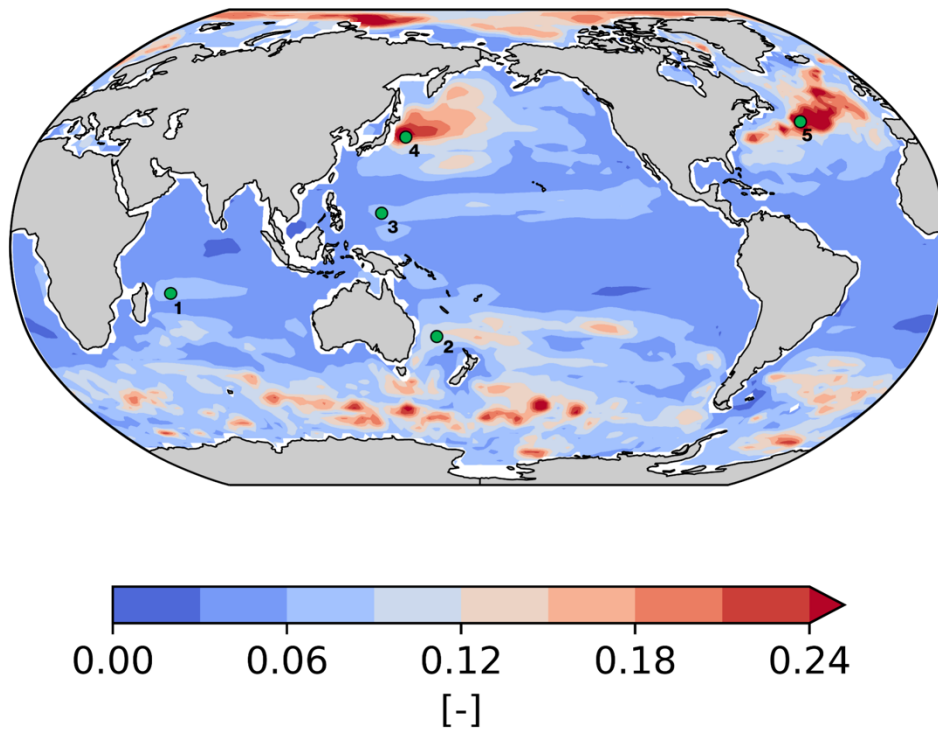
**Figure S6:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 7 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



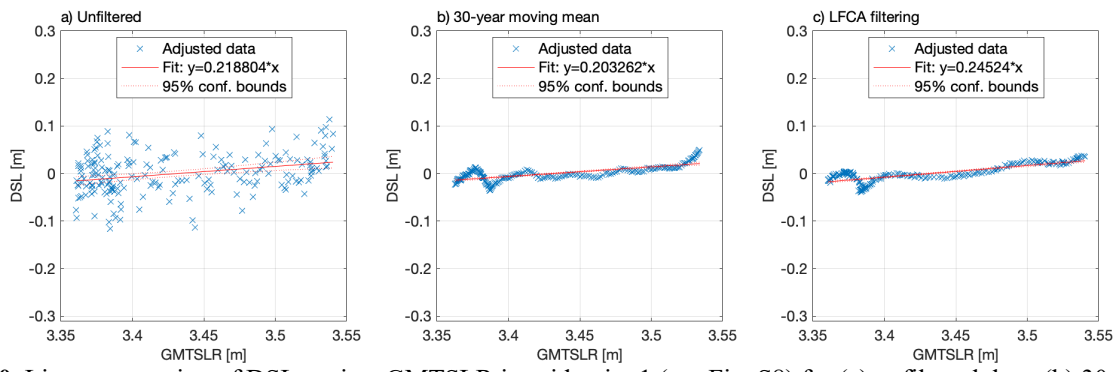
**Figure S7:** Time evolution in terms of standard deviations (a, c, and e, respectively) and associated S/N M EOF pattern number 8 for RCP 2.6, 4.5, and 8.5 (b, d, and f respectively). Light coloured lines in a, c, and d represent standard deviation anomalies from ensemble members, whereas dark coloured lines depict ensemble mean evolution of the pattern.



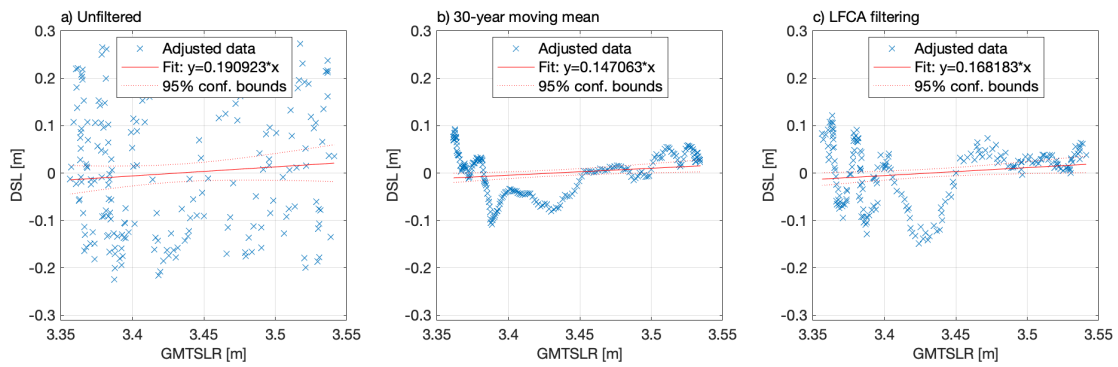
**Figure S8.** Slope difference between unfiltered and filtered DSL obtained from pattern scaling using GMTSRL as predictor for RCP 2.6 (a), RCP 4.5 (b), RCP and 8.5.



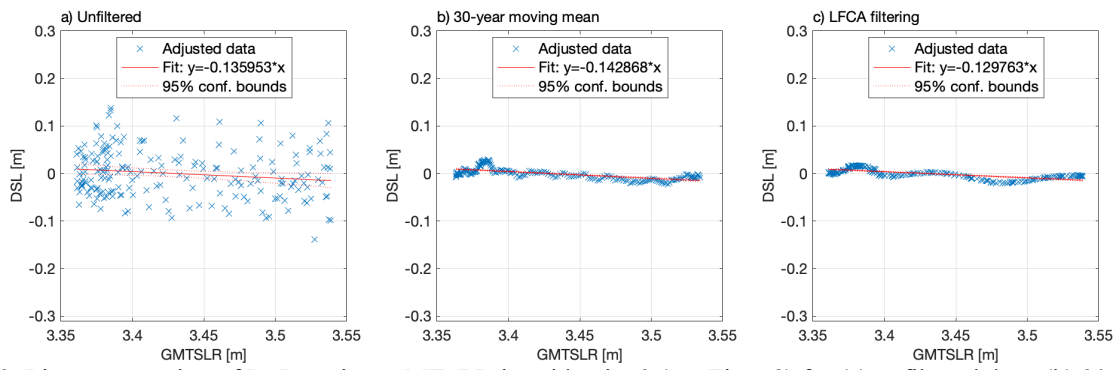
**Figure S9.** Enlargement of figure S8a to show locations for figures S10-14, which are shown as green dots.



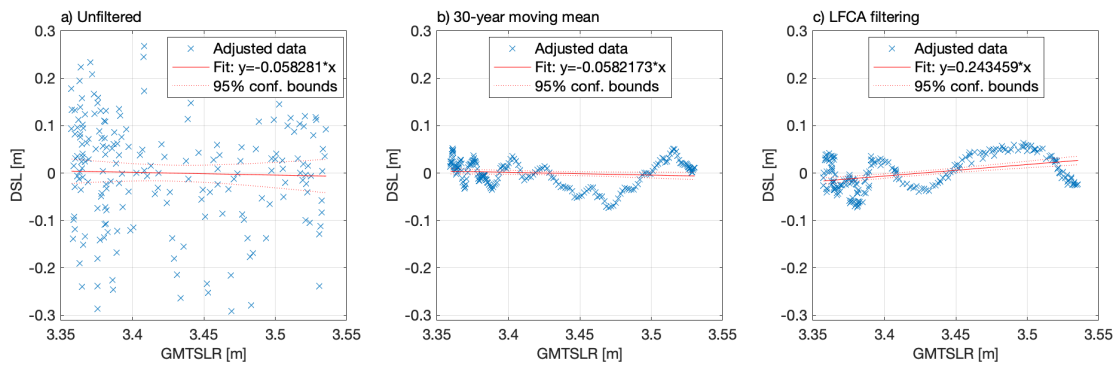
**Figure S10.** Linear regression of DSL against GMTSLR in grid point 1 (see Fig. S8) for (a) unfiltered data, (b) 30-year moving mean, and (c) LFCA-filtered data.



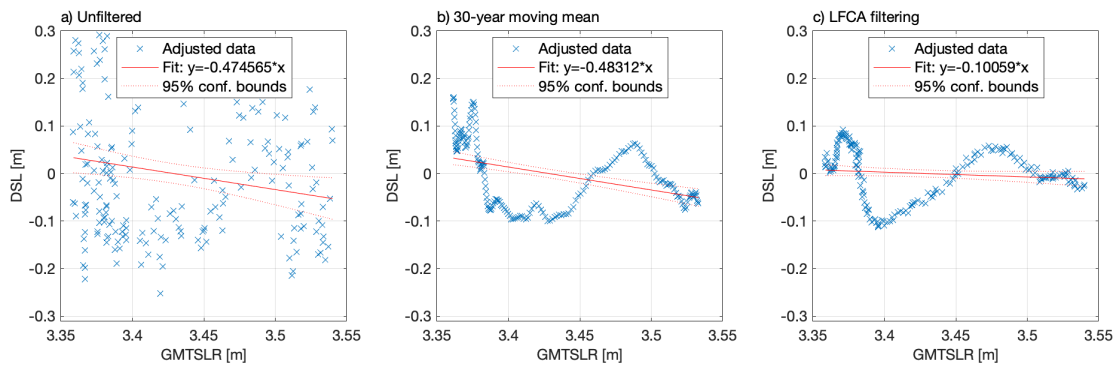
**Figure S11.** Linear regression of DSL against GMTSLR in grid point 2 (see Fig. S8) for (a) unfiltered data, (b) 30-year moving mean, and (c) LFCA-filtered data.



**Figure S12.** Linear regression of DSL against GMTSLR in grid point 3 (see Fig. S8) for (a) unfiltered data, (b) 30-year moving mean, and (c) LFCA-filtered data.



**Figure S13.** Linear regression of DSL against GMTSLR in grid point 4 (see Fig. S8) for (a) unfiltered data, (b) 30-year moving mean, and (c) LFCA-filtered data.



**Figure S14.** Linear regression of DSL against GMTSLR in grid point 5 (see Fig. S8) for (a) unfiltered data, (b) 30-year moving mean, and (c) LFCA-filtered data.