

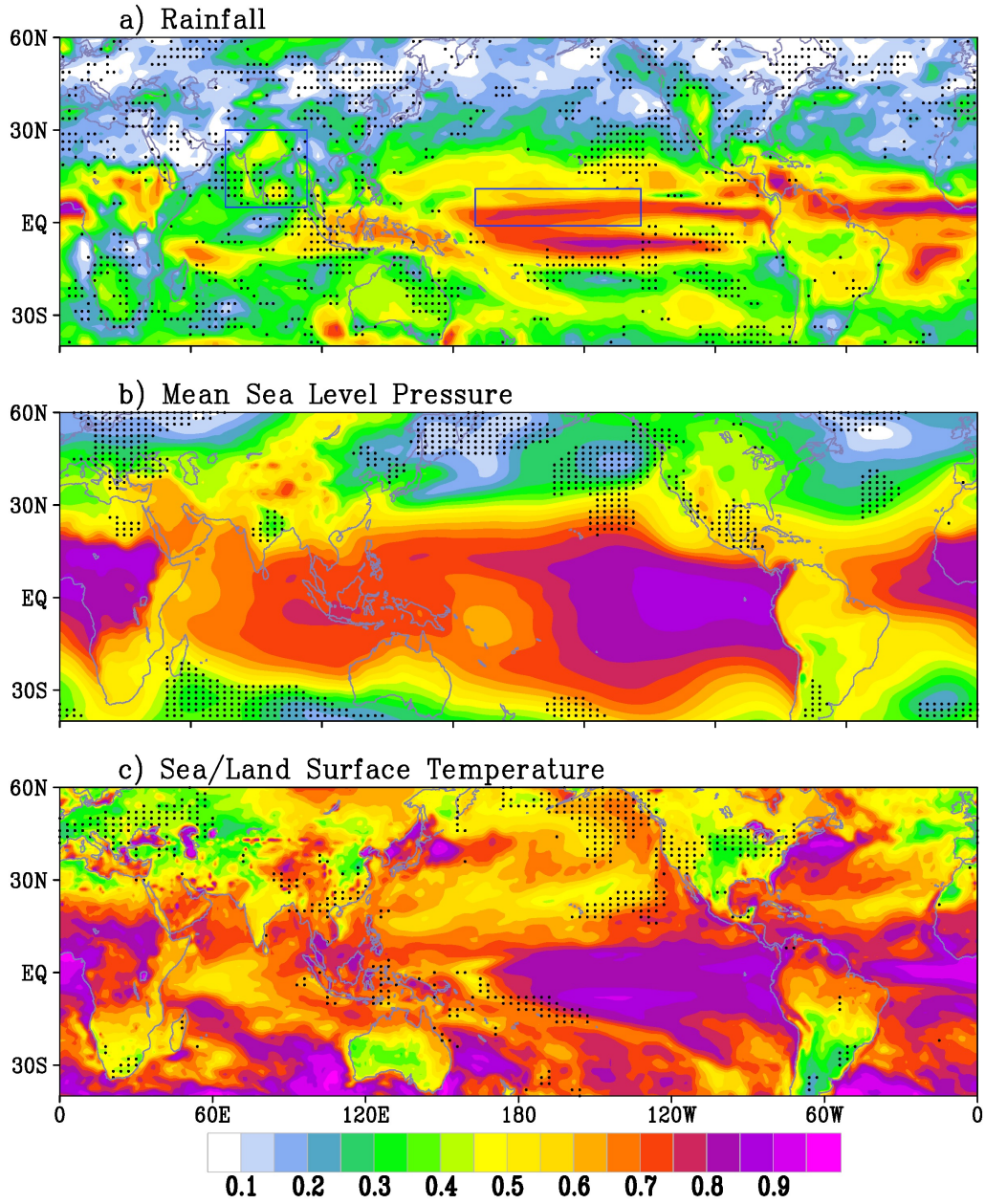
# Supporting Information for “Why does the signal-to-noise paradox exist in seasonal climate predictability?”

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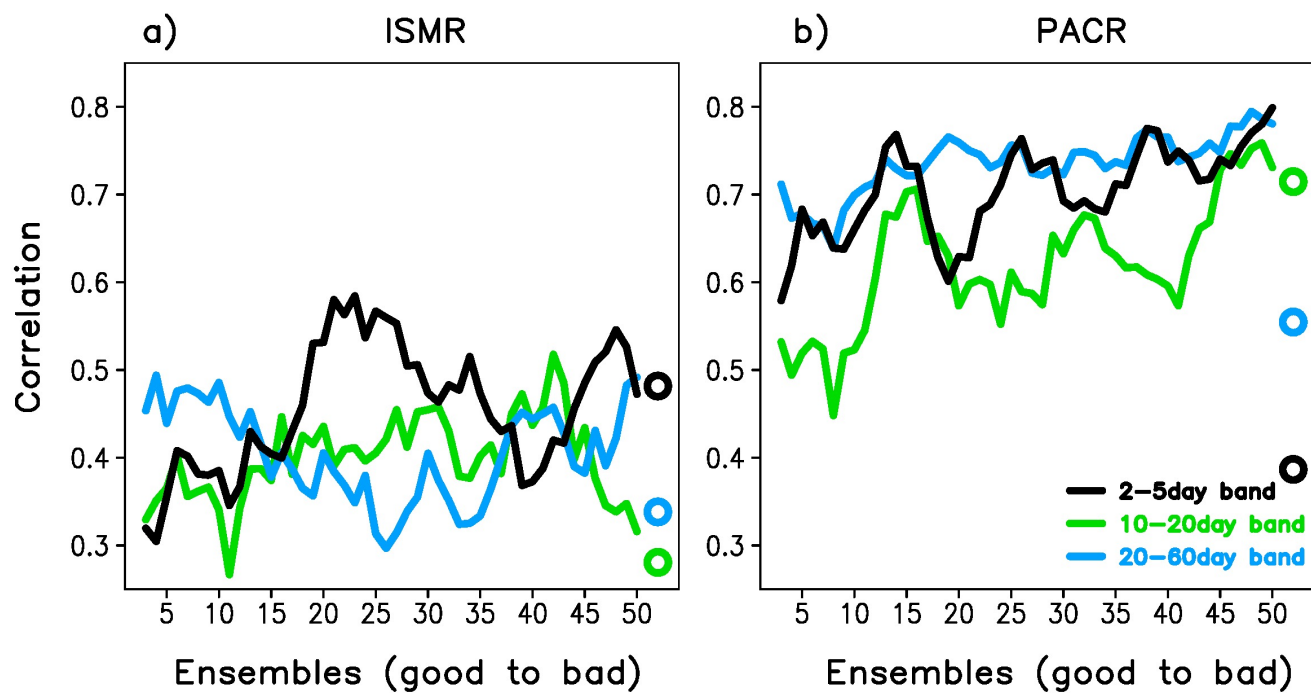
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**Figure S1.** Same as Figure 01, but for the time period 1997-2021. Potential predictability based on ANOVA method for JJAS averaged a) rainfall, b) mean Sea level pressure, and c) Sea/land surface temperature using CFSv2 re-forecast of 25 years (1997-2021) and 52 ensemble members. Paradox regions (where model correlation skill with observations is higher than the potential predictability) are stippled. White semi-transparent regions, mostly coinciding with stippled regions, represent  $RPC > 1.0$ .



**Figure S2.** Same as Figure 09, but arranged from good to poor ensemble members, showing variation of co-variability between predictant and four predictors. Open circles represent Observed multiple correlation value.