

Supplement of :

Modeling study of the impact of SO₂ volcanic passive emissions on the tropospheric sulfur budget"

Lamotte et al

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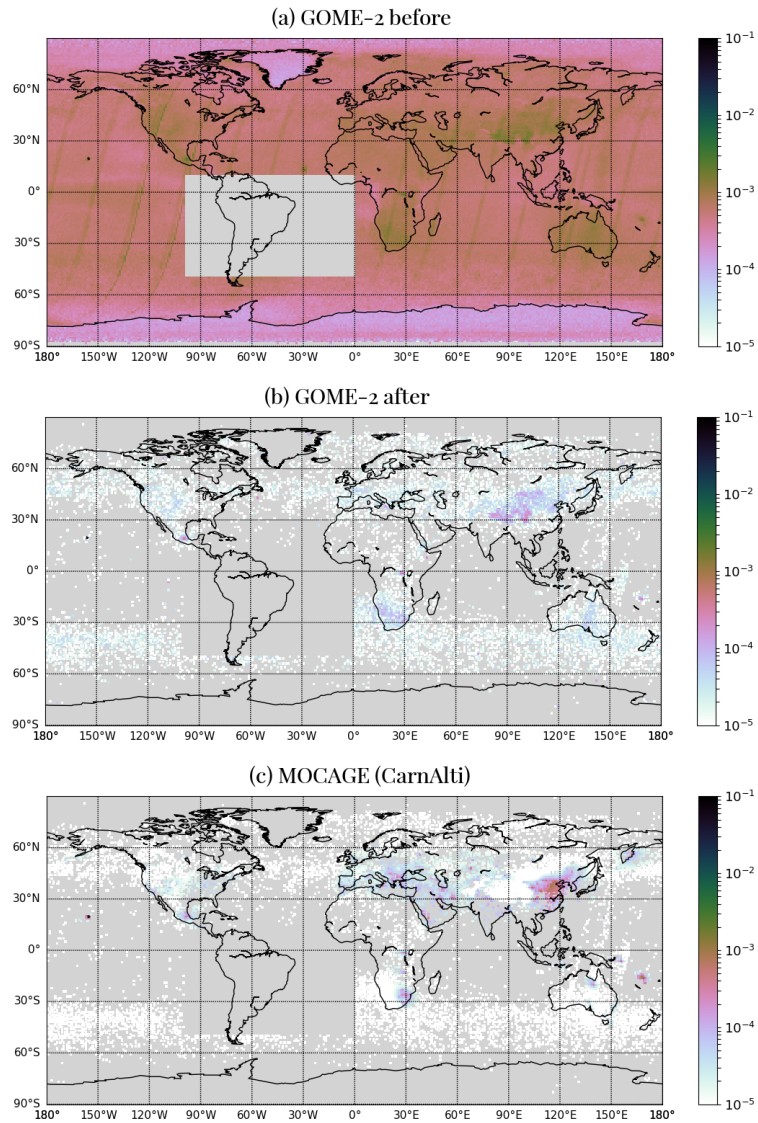


Figure S1. GOME-2 SO₂ total column (a) before and (b) after the filtering processing and (c) CARNALTI 2013 annual mean SO₂ tropospheric column (mol.m⁻²). Grey pixels correspond to the pixels filtered by the processing.

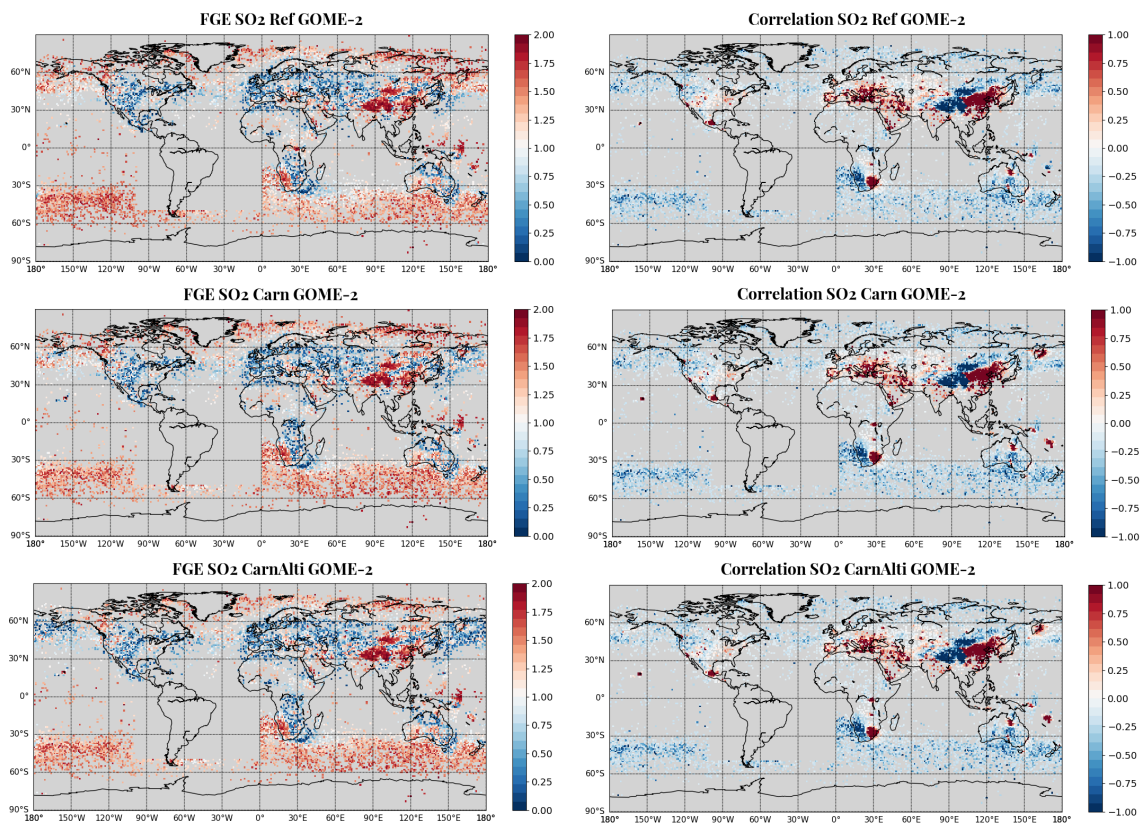


Figure S2. Global FGE and correlation coefficient of SO₂ total column for (a) REF, (b) CARN and (c) CARNALTI simulations against daily GOME-2 observations. Grey pixels correspond to the pixels filtered by the processing.

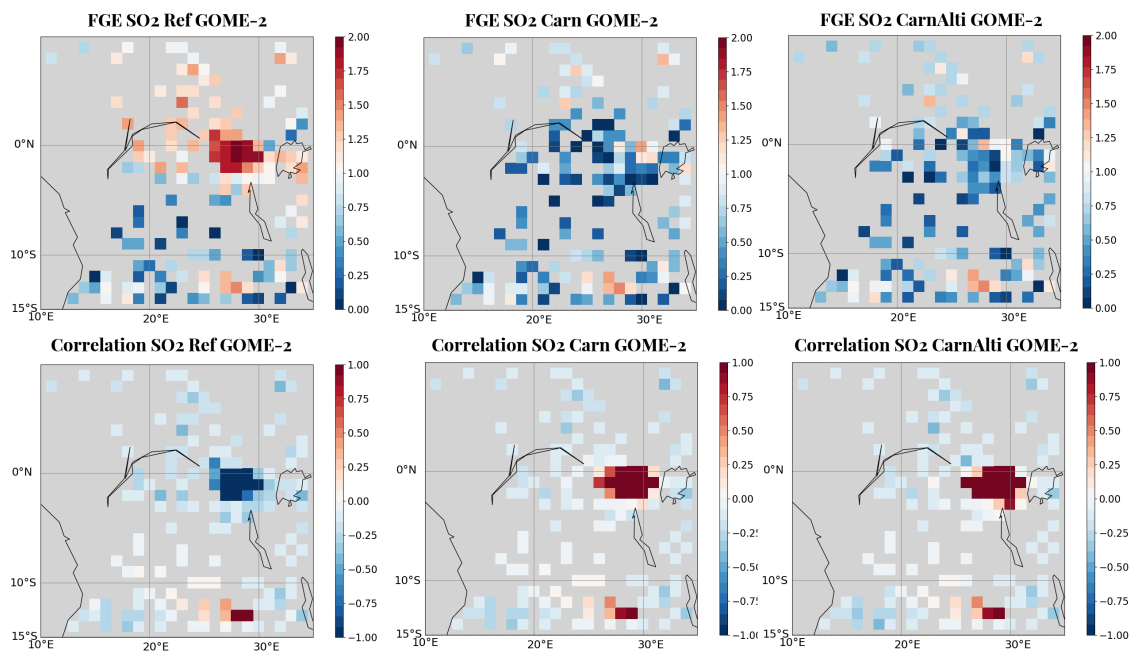


Figure S3. Maps of the FGE of GOME-2 daily SO₂ total column for REF, CARN and CARNALTI simulations for Zone 1. Grey pixels correspond to the pixels filtered by the processing.

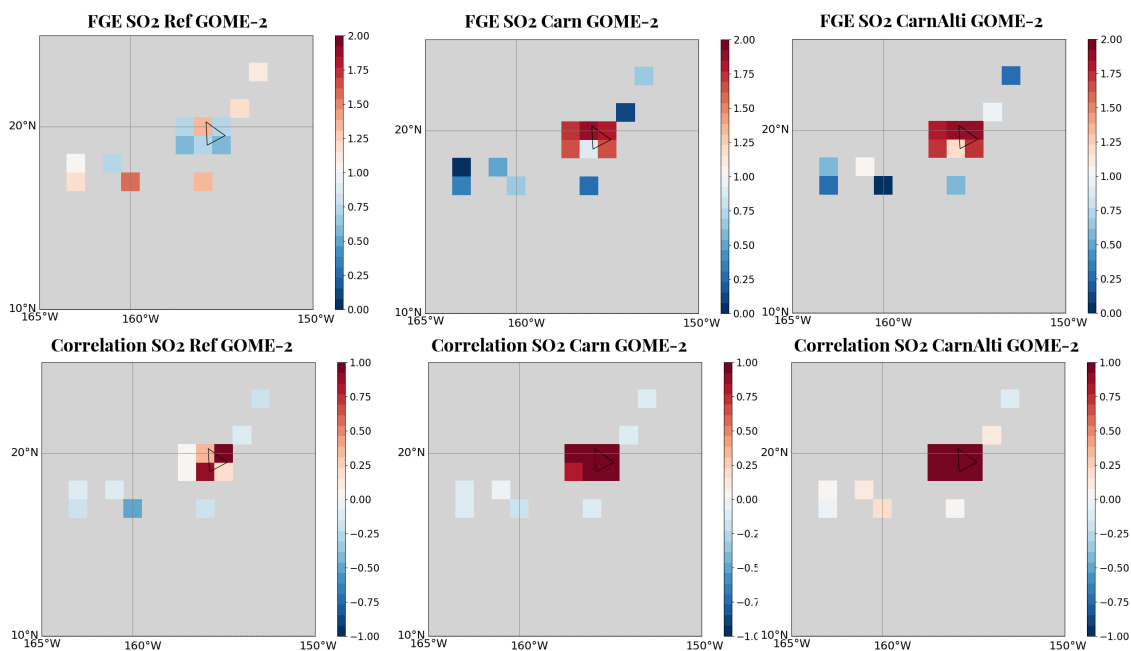


Figure S4. Maps of the FGE of GOME-2 daily SO₂ total column for REF, CARN and CARNALTI simulations for Zone 2. Grey pixels correspond to the pixels filtered by the processing.

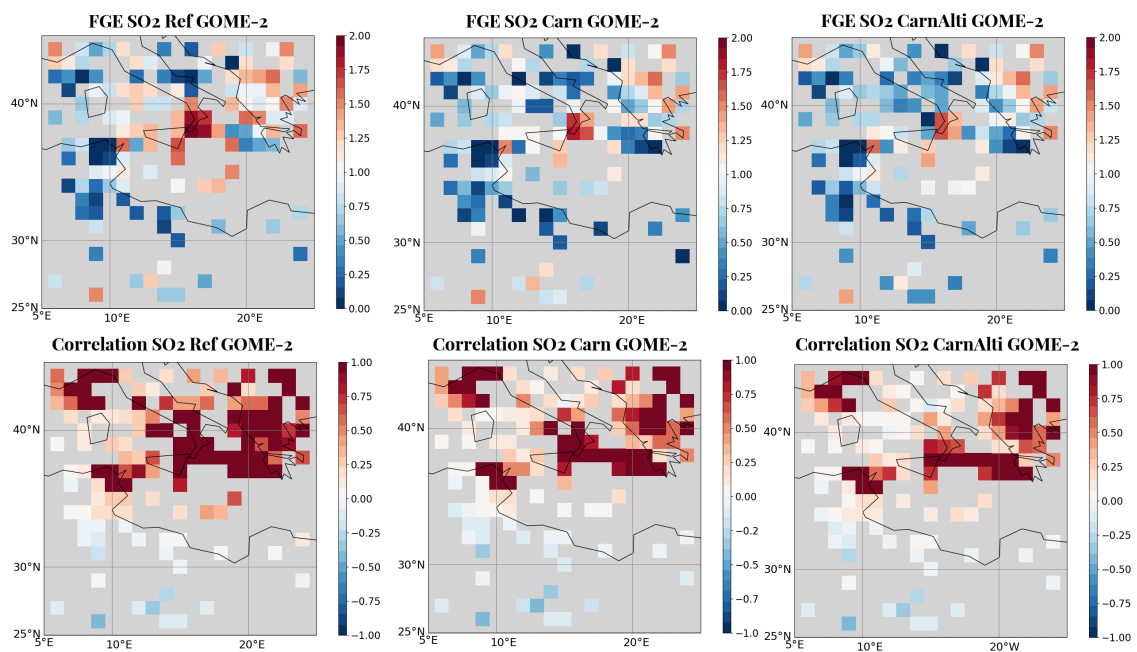


Figure S5. Maps of the FGE of GOME-2 daily SO₂ total column for REF, CARN and CARNALTI simulations for Zone 3. Grey pixels correspond to the pixels filtered by the processing.

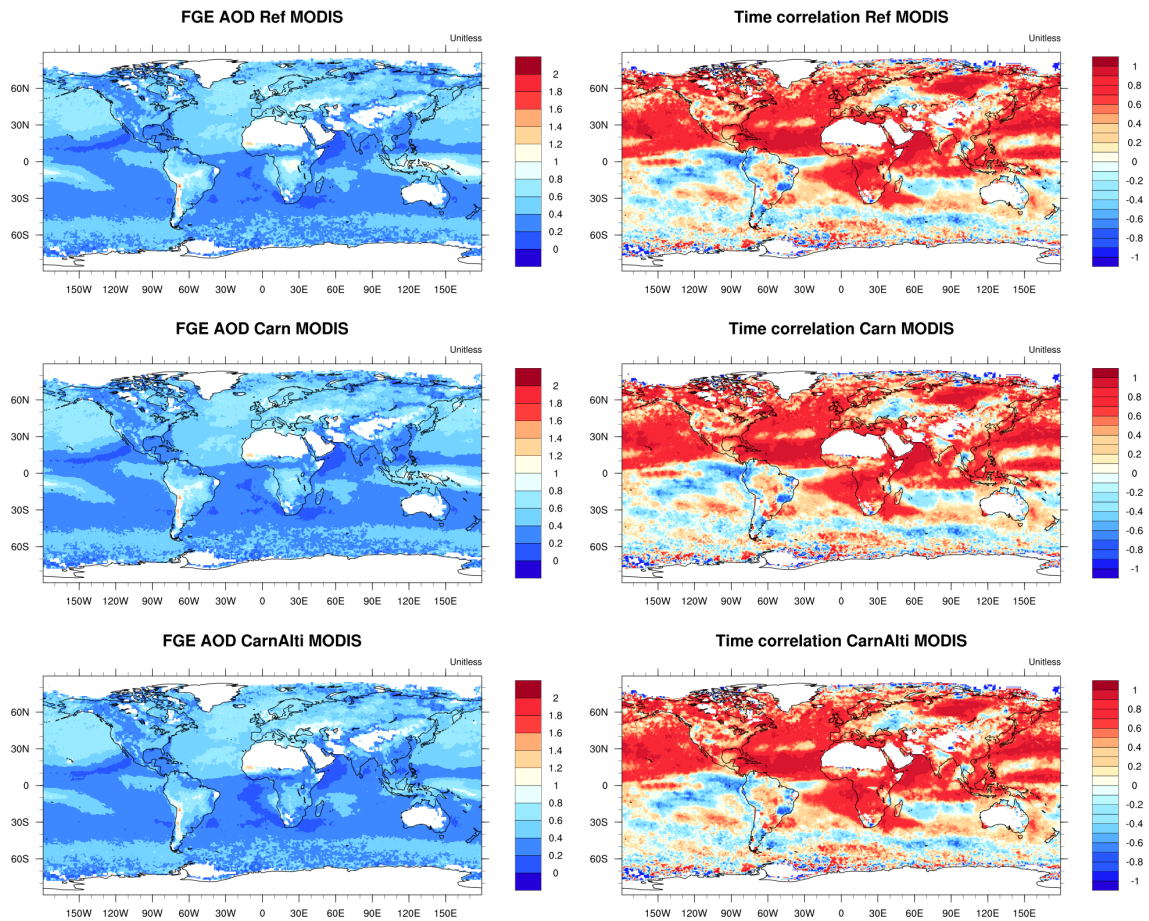


Figure S6. Global FGE and correlation coefficient of AOD for REF, CARN and CARNALTI simulations against monthly MODIS observations.

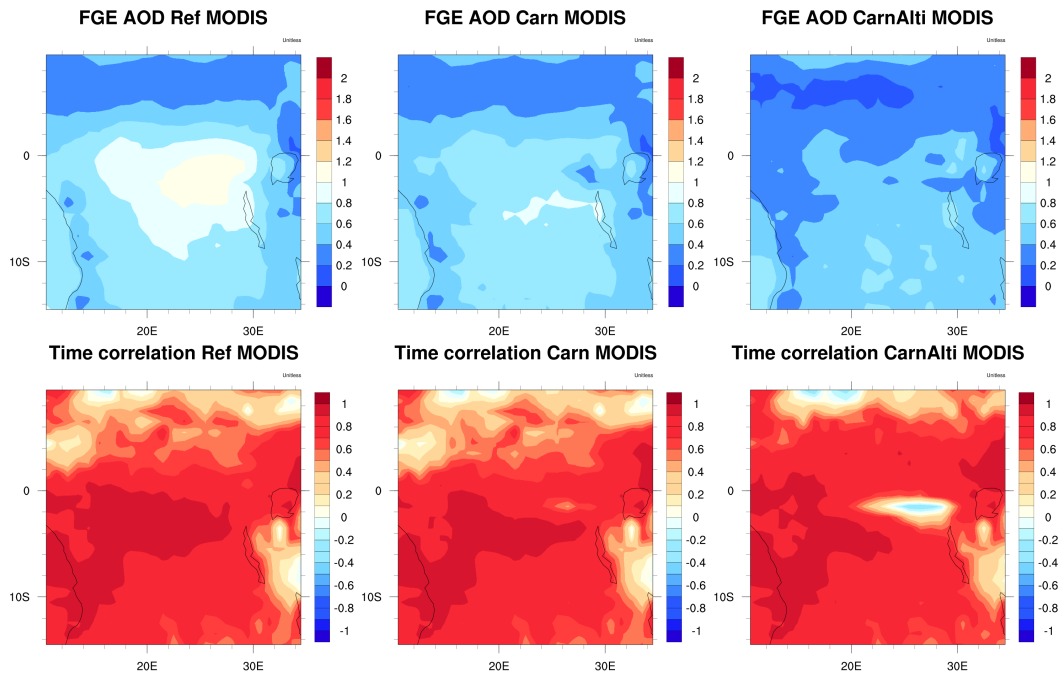


Figure S7. Maps of the FGE and correlation coefficient of AOD for REF, CARN and CARNALTI simulations against monthly MODIS observations in Zone 1 (Central Africa).

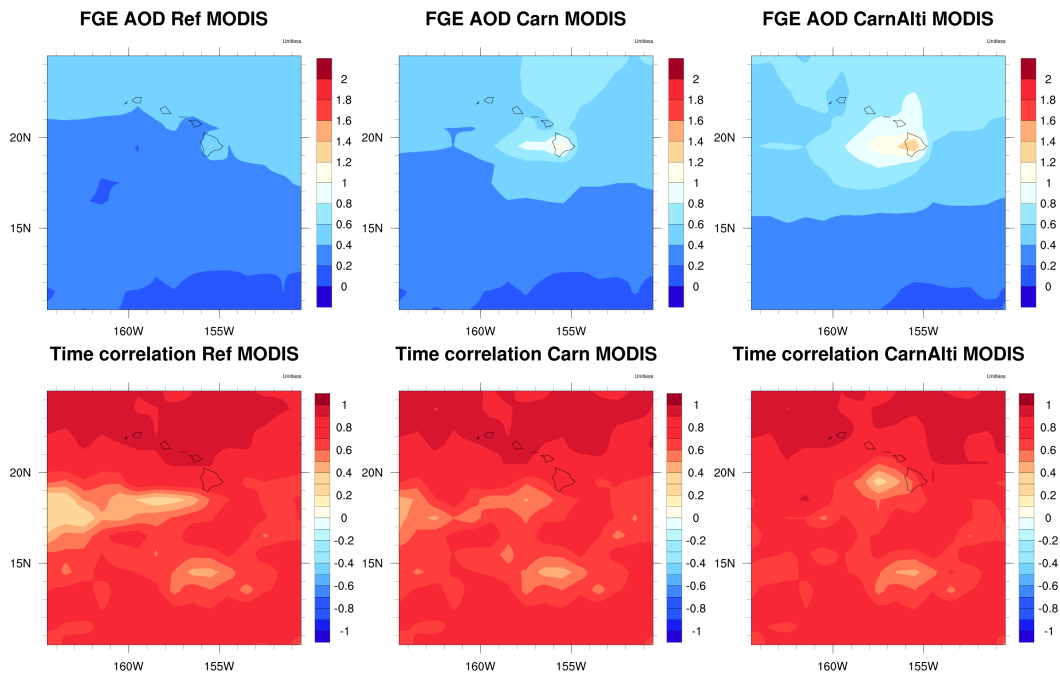


Figure S8. Maps of the FGE and correlation coefficient of AOD for REF, CARN and CARNALTI simulations against monthly MODIS observations in Zone 2 (Hawaii).

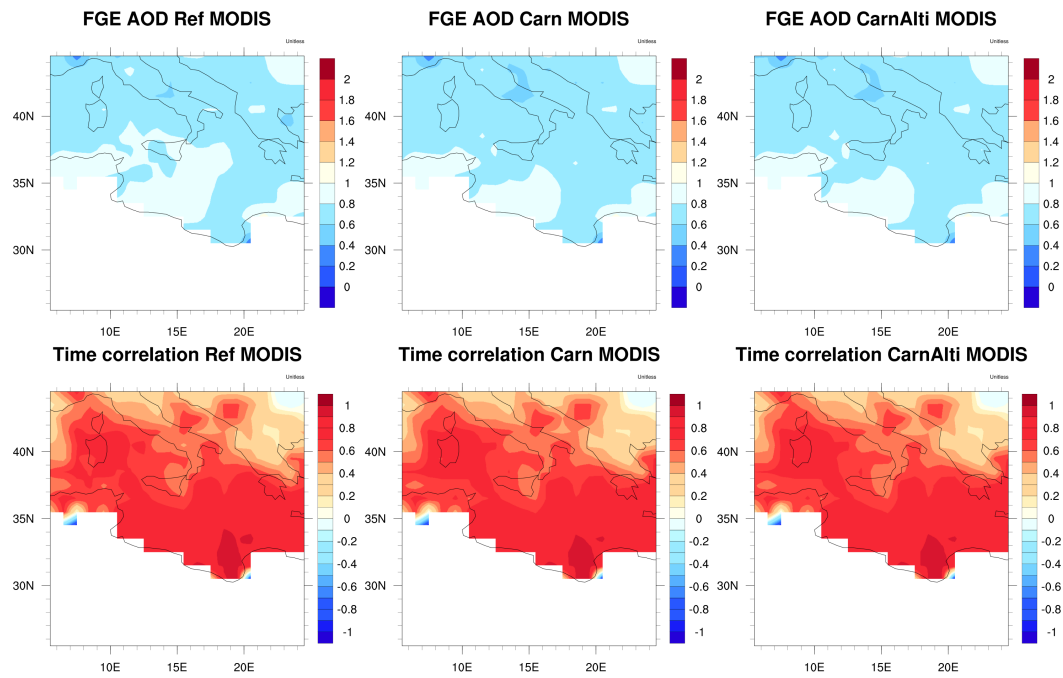


Figure S9. Maps of the FGE and correlation coefficient of AOD for REF, CARN and CARNALTI simulations against monthly MODIS observations in Zone 3 (Mediterranean Sea).

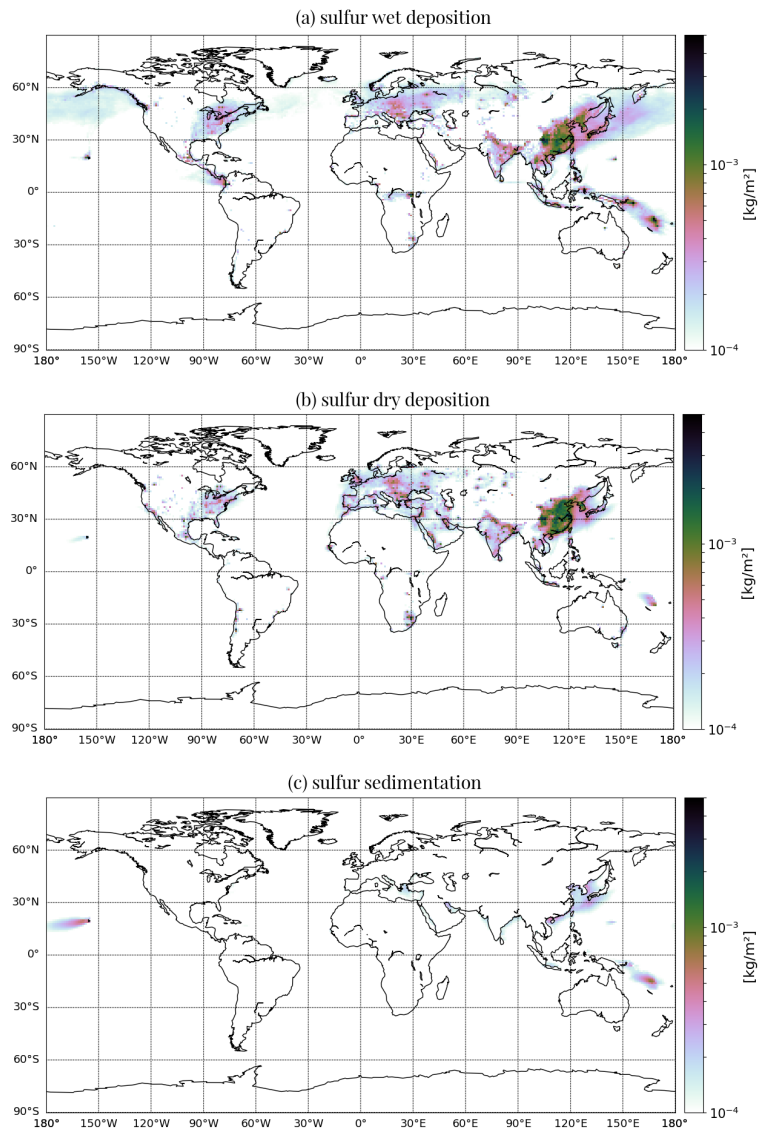


Figure S10. Annual mean sulfur (a) wet and (b) dry deposition and (c) sedimentation (in $\text{kg}\cdot\text{m}^{-2}$) for CARNALTI simulation.

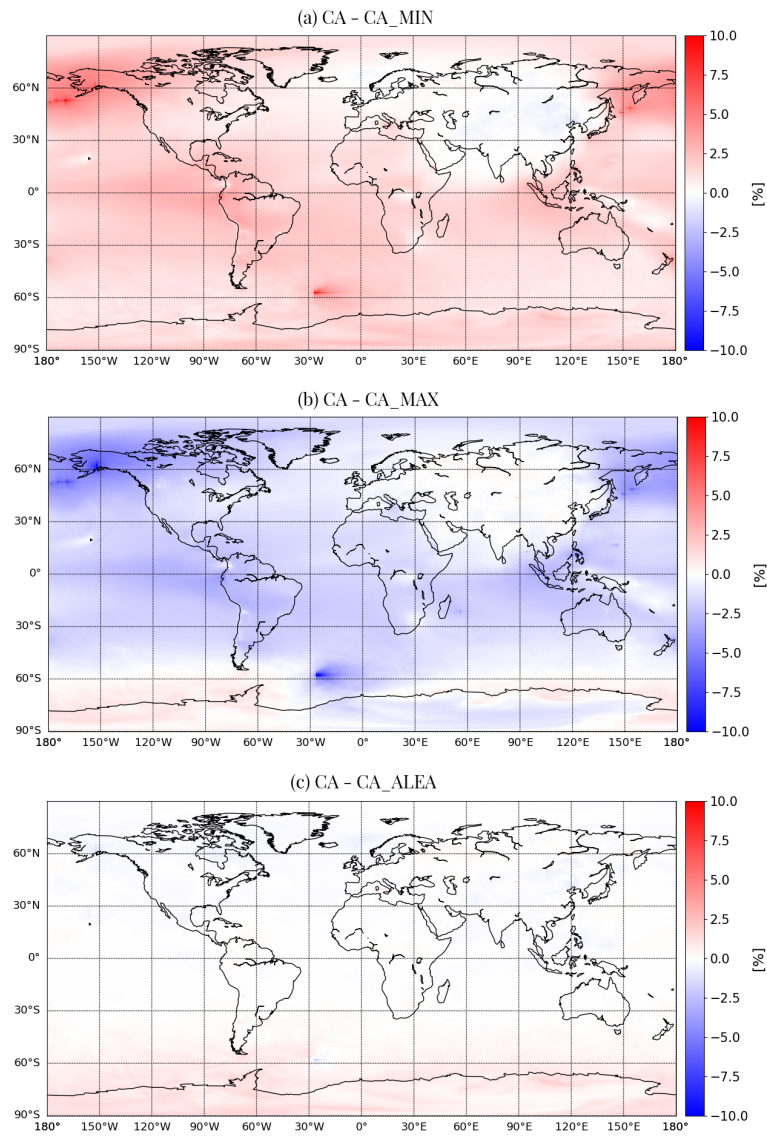


Figure S11. Difference in sulfate tropospheric column volcanic contribution between CA and (a) CA_MIN, (b) CA_MAX and (c) CA_RAND simulations, in %.