

EGU24-20761, updated on 20 May 2024

<https://doi.org/10.5194/egusphere-egu24-20761>

EGU General Assembly 2024

© Author(s) 2024. This work is distributed under the Creative Commons Attribution 4.0 License.



## Visualizing the transition from LaNiño to ElNiño from NASA's model outputs

**Atousa Saberi** and Gregory Shirah

NASA, United States of America (atousa.saberi.unique@gmail.com)

The ENSO affects global weather. We used NASA GEOS Subseasonal to Seasonal (S2S) Coupled ocean-atmosphere model, NASA MERRA-2 reanalysis, along with NOAA Niño3.4 SST anomaly index time series to visualize the transition from LaNiño 2021 to ElNiño 2023. The visualization is a comprehensive model explainer showing changes in the top 300 meters of the Pacific Ocean (such as thermocline flattening, movements of the temperature anomalies) coupled with the Walker Circulation and the continuous coupled interaction between the ocean and the atmosphere. It's the first effort in visualizing the Walker Circulation and the moving convective branch across the Pacific without schematic plots but rather with climate model outputs. We will also cover the effect of the two phases of ENSO on the global weather pattern. This visualization will be narrated and released to the public in the future.