

Assessing ENSO risks for the coming decades

Andrew Wittenberg[†];

[†] NOAA GFDL, USA

Leading author: andrew.wittenberg@noaa.gov

The El Niño / Southern Oscillation (ENSO) affects weather, ecosystems, and economies worldwide. Yet despite great progress towards understanding and predicting ENSO, its future remains uncertain. Will the coming decades bring a barrage of strong El Niño and La Niña events, or could there be no events at all? Historical reconstructions, paleo records, and model simulations all display prolonged epochs of active or quiet ENSO, which challenge ENSO theories, hamper detection of anthropogenic impacts, and complicate model evaluation and intercomparison. I shall discuss these challenges, and describe recent efforts to probe the limits of ENSO predictability and its sensitivities to past & future climate changes.