How is Global Warming Making El Niño/Southern Oscillation Stronger?



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Science Research Symposium

Conclusion/Application

* ENSO variance increases significantly over the 21st century
* The major factor contributing to this increase is greenhouse gasses, with aerosol emissions playing a secondary role.

Future Research

* Continue analysis of CESM2 output
* Mixed layer heat budget analysis

SCIENCE FAIR PICTURE HERE

I carried out this project because I am really passionate about solving climate change. I enjoyed doing it because it was a great way to learn about data science.

Under the guidance of:

Dr. John Fasullo, National Center for Atmospheric research



I am interested in majoring in physics with the intent of becoming a data scientist.

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Introduction

Climate Change



Chart, diagram

Description automatically generated

https://www.coolaustralia.org/the-greenhouse-effect-secondary/

El Niño/Southern Oscillation (ENSO)

Problem Statement

It is unclear what specific human-caused and natural factors are affecting ENSO intensity and how

Research Questions:

1. Do the CESM1 and CESM2 climate models predict increased or decreased ENSO intensity in the future?
2. Is the predicted increase (or decrease) due to greenhouse emissions?