



# El Niño southern oscillation in a changing climate /

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Monografía

"Comprehensive and up-to-date information on Earth's most dominant year-to-year climate variation The El Niño Southern Oscillation (ENSO) in the Pacific Ocean has major worldwide social and economic consequences through its global scale effects on atmospheric and oceanic circulation, marine and terrestrial ecosystems, and other natural systems. Ongoing climate change is projected to significantly alter ENSO's dynamics and impacts. El Niño Southern Oscillation in a Changing Climate presents the latest theories, models, and observations, and explores the challenges of forecasting ENSO as the climate continues to change. Volume highlights include: Historical background on ENSO and its societal consequences - Review of key El Niño (ENSO warm phase) and La Niña (ENSO cold phase) characteristics - Mathematical description of the underlying physical processes that generate ENSO variations - Conceptual framework for understanding ENSO changes on decadal and longer time scales, including the response to greenhouse gas forcing ENSO impacts on extreme ocean, weather, and climate events, including tropical cyclones, and how ENSO affects fisheries and the global carbon cycle - Advances in modeling, paleo-reconstructions, and operational climate forecasting - Future projections of ENSO and its impacts - Factors influencing ENSO events, such as inter-basin climate interactions and volcanic eruptions"--

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