



Relating allowable CO₂ emissions to regional- and impact-related climate targets



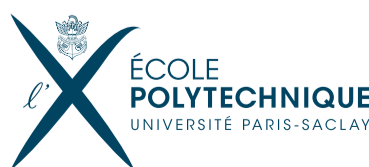
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Global temperature targets, such as the widely accepted limit of an increase above pre-industrial temperatures of two degrees Celsius, often fail to communicate the urgency of reducing carbon dioxide (CO₂) emissions because they are disconnected from their implications. The translation of CO₂ emissions into regional- and impact- related climate targets is more powerful because such targets are more directly aligned with individual national interests. This presentation will highlight results from a recent publication (Seneviratne et al. 2016) illustrating this approach for regional changes in extreme temperatures and precipitation. These scale robustly with global temperature across scenarios, and thus with cumulative CO₂ emissions. This result is particularly relevant for changes in regional extreme temperatures on land, which are much greater than changes in the associated global mean. Process-based analyses explain this divergence and highlight avenues for reducing uncertainties in regional projections of extremes...



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