

Panel Discussion on Modelling Climate Impacts with Human/Social Feedback

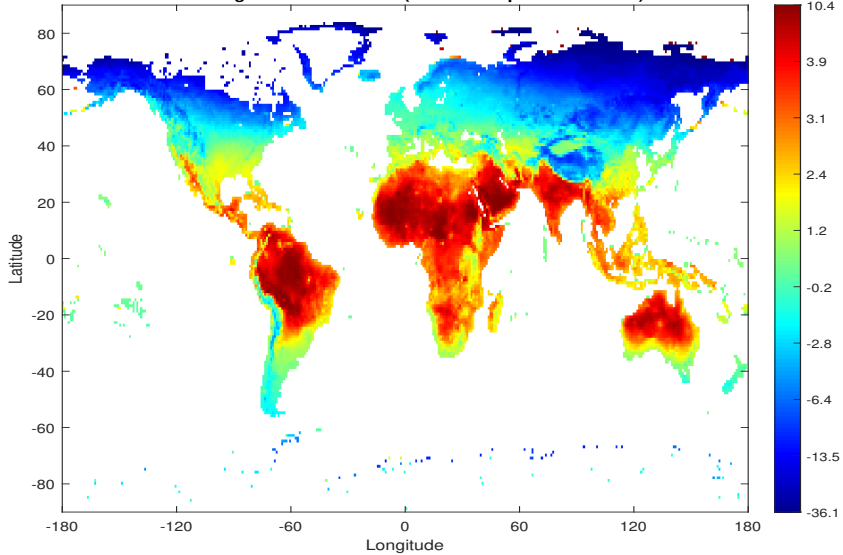
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High-Resolution Integrated Assessment Models

- ▶ Build computational laboratories for evaluating the effects of climate change at a high degree of geographic resolution.
- ▶ Merge Earth System models with dynamic, general equilibrium economic models to incorporate weather (extreme events) as well as climate: “two-way coupling” .
- ▶ Fully-articulated models in which one can analyze quantitatively the effects of counterfactual policies. How do resources move across space? Who gains and who loses?
- ▶ Permits detailed quantitative analysis of international climate agreements and international sharing of climate risk.
- ▶ Need to foster and reward interaction between economists, climate scientists, ecologists, and geographers.
- ▶ Need powerful computing resources and technical expertise on numerical analysis and coding.

Welfare gains from taxation (with free capital movement)



Per Capita GDP by Country: Ratio of 90th to 10th Percentile
(triangle = laissez-faire; circle = optimal tax)

