Robust policy advise using IAMs

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ADVANCE Final conference

Advanced Model Development and Validation for the Improved Analysis of Costs and Impacts of Mitigation Policies

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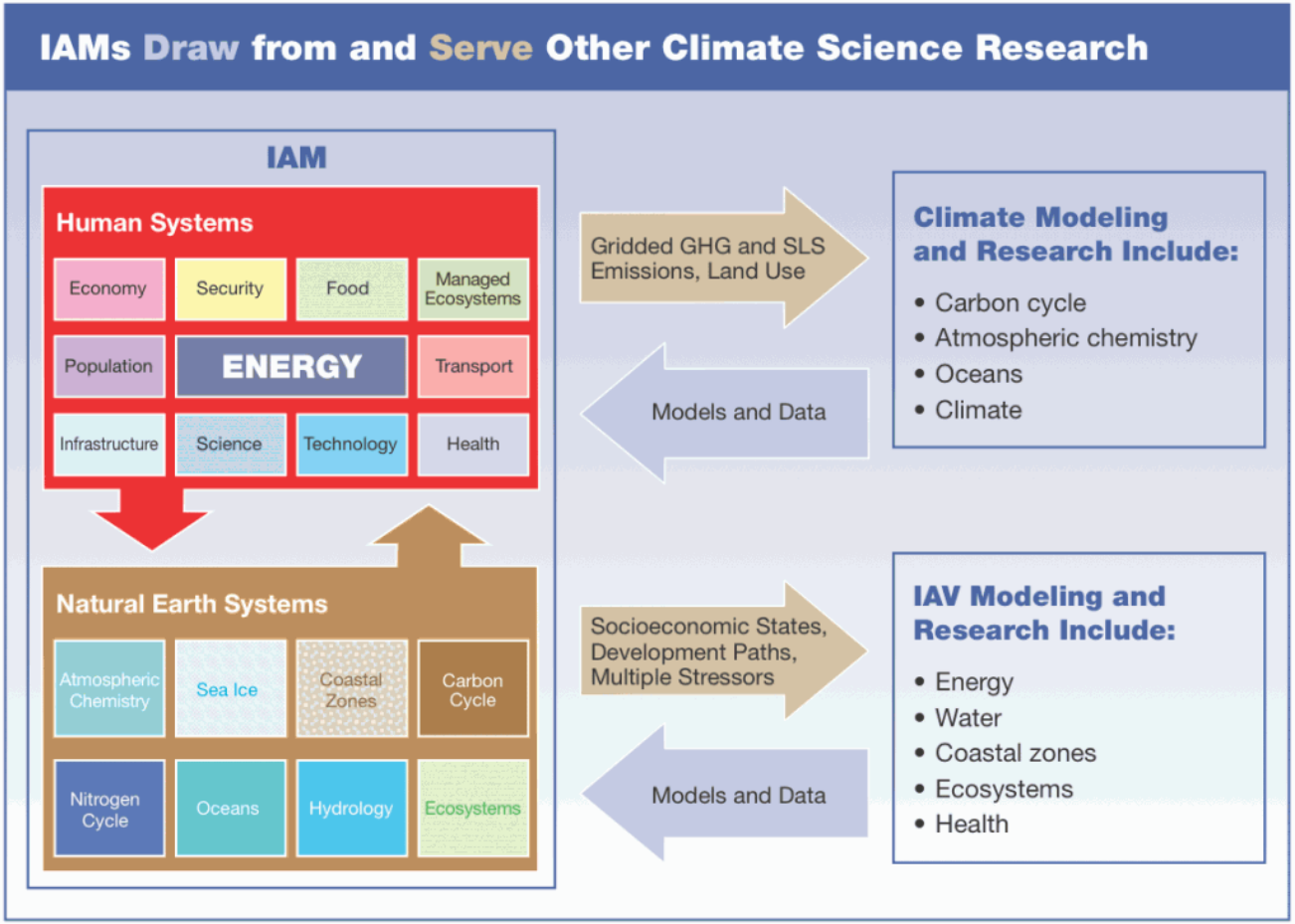
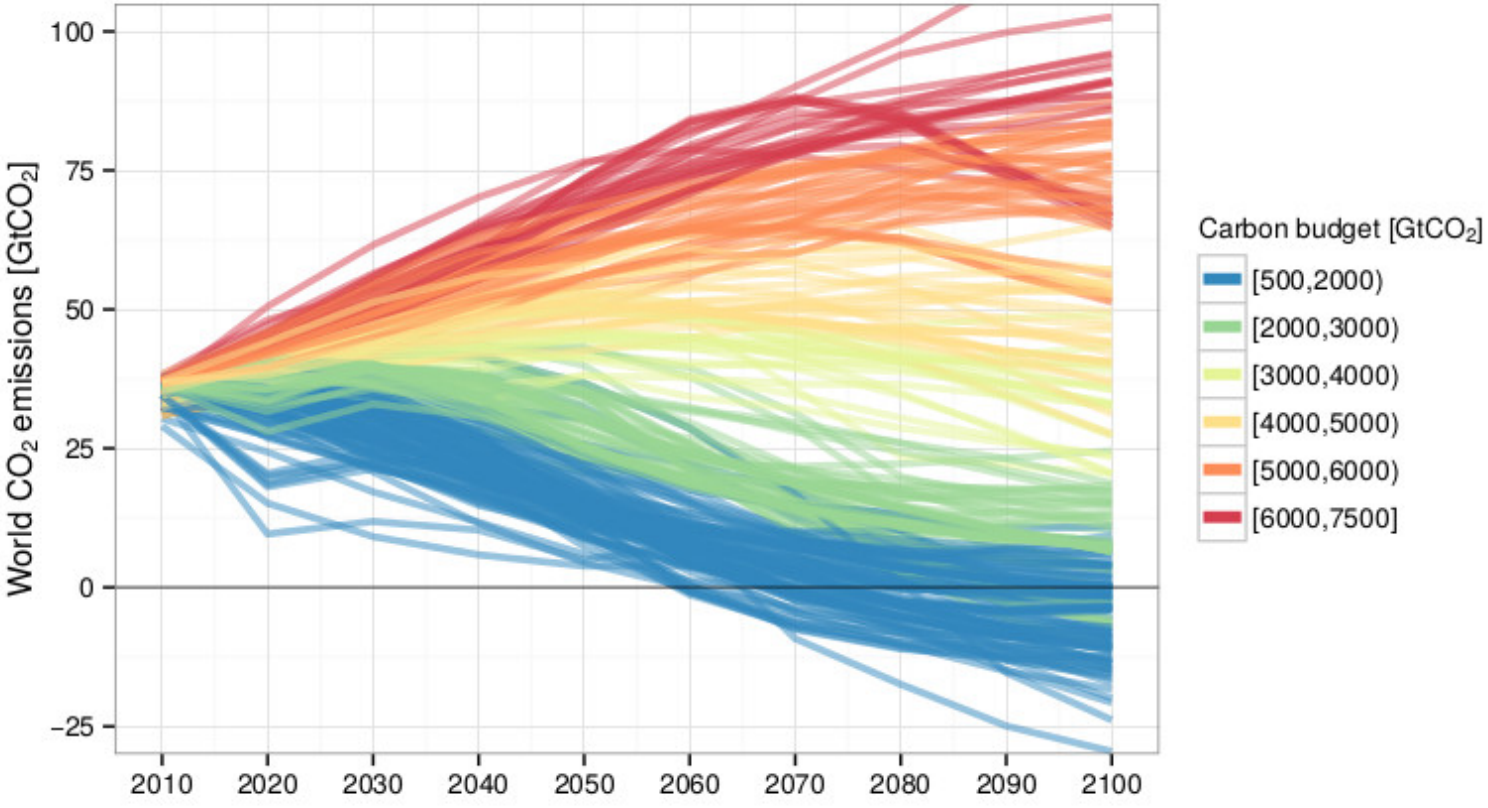
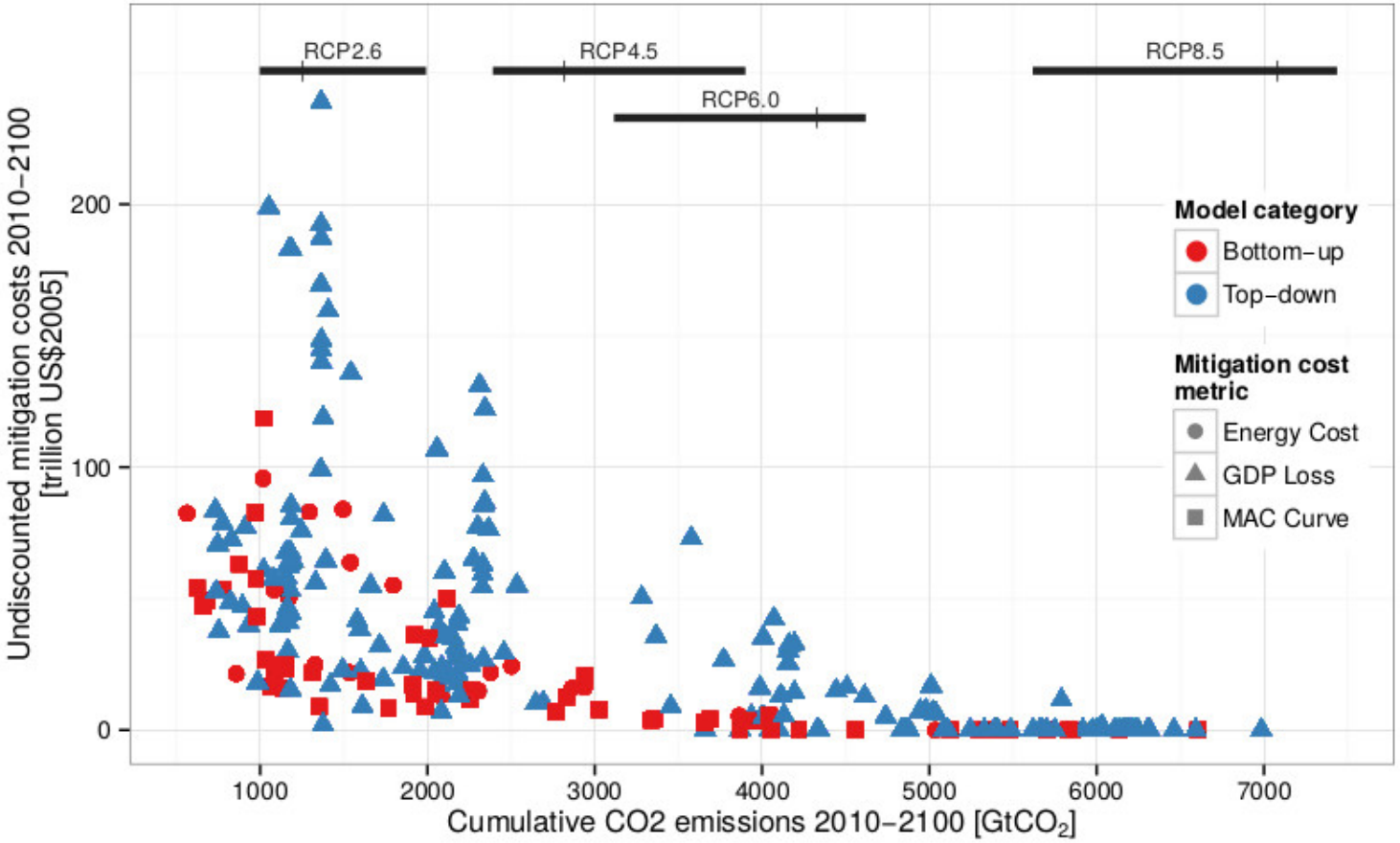
Complex IAMs



Scenario generation

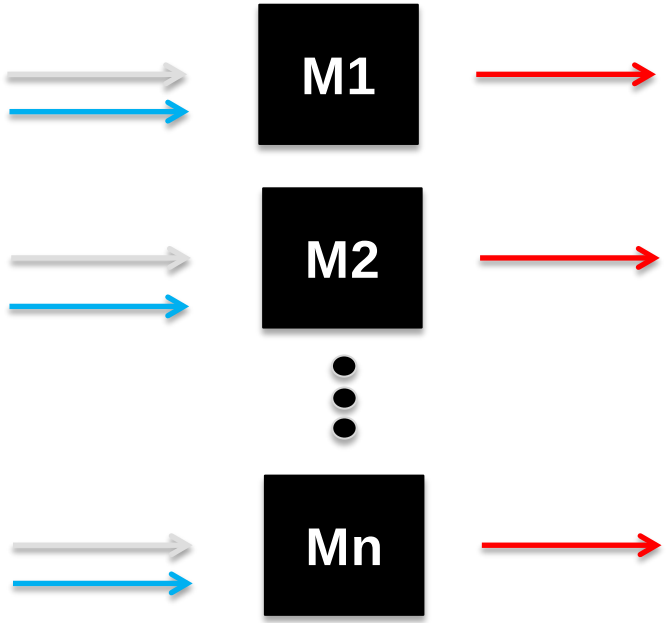


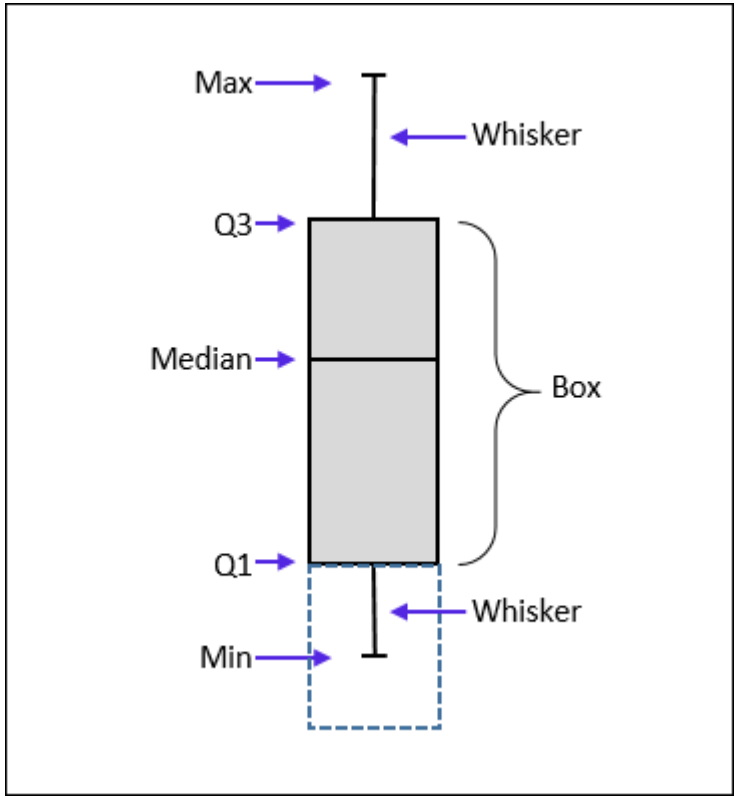
Uncertainty: policy costs



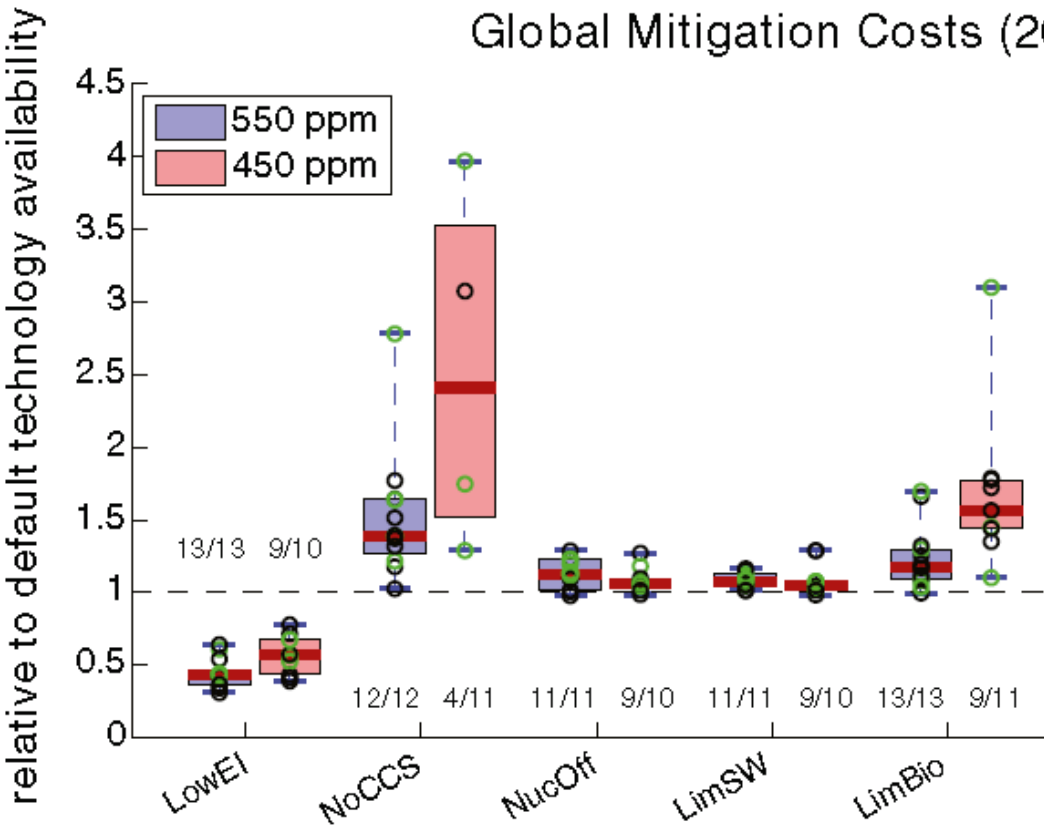
Complex IAMs

Model Uncertainty

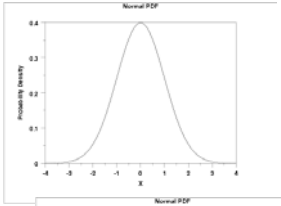


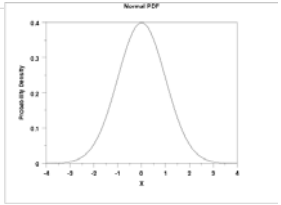


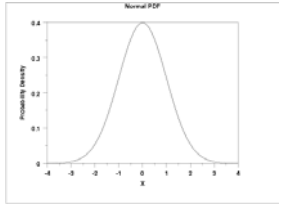
Multi model comparisons



Parameter Uncertainty



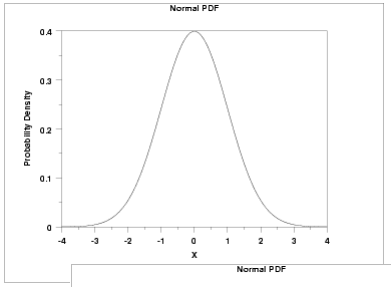


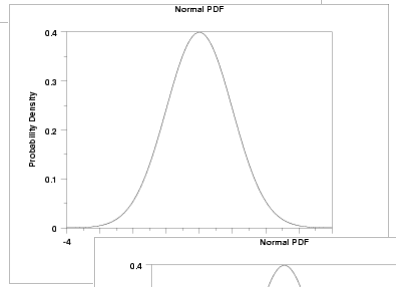


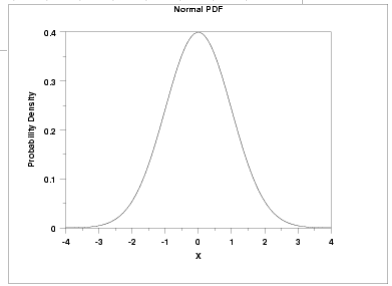
M1

M2

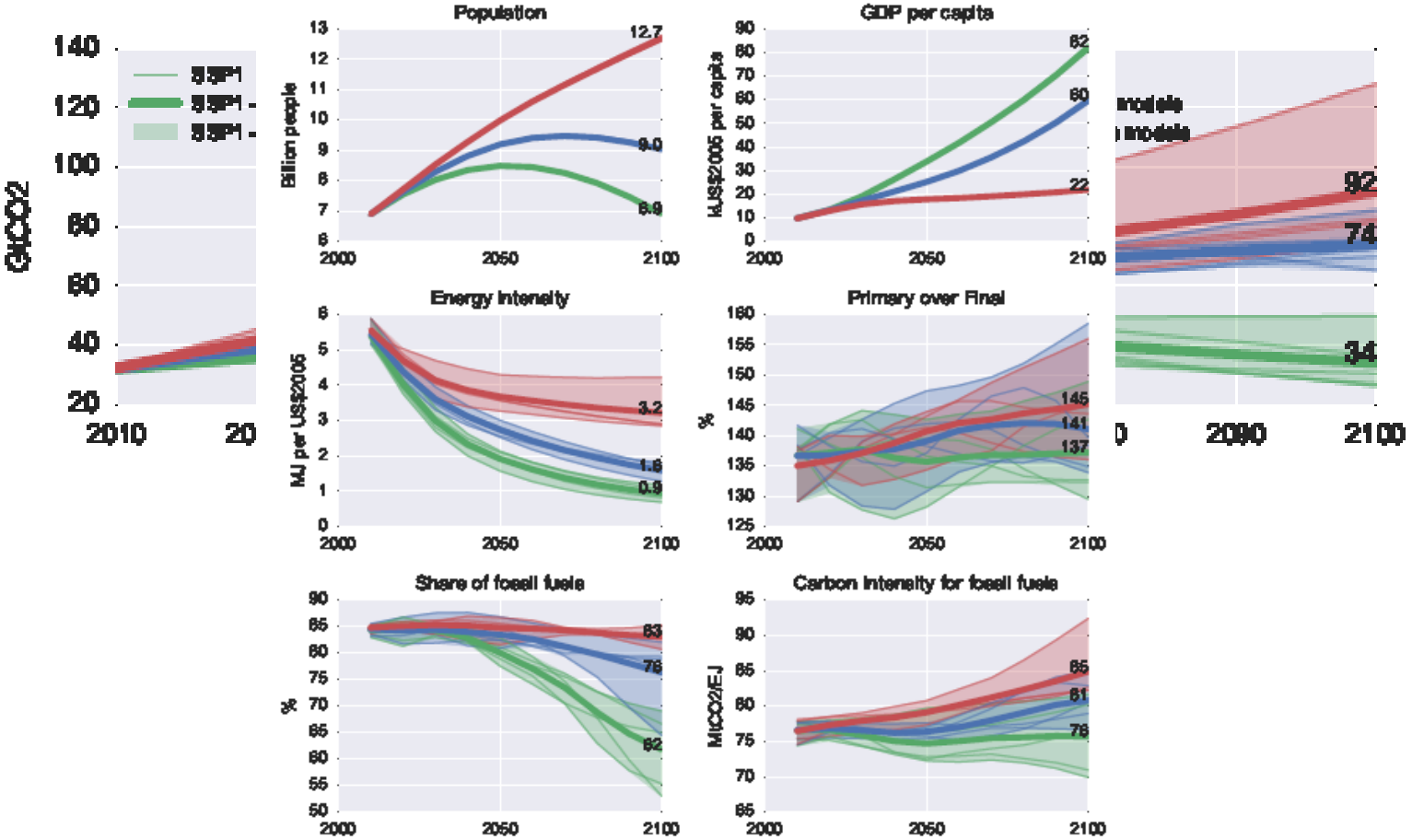
Mn



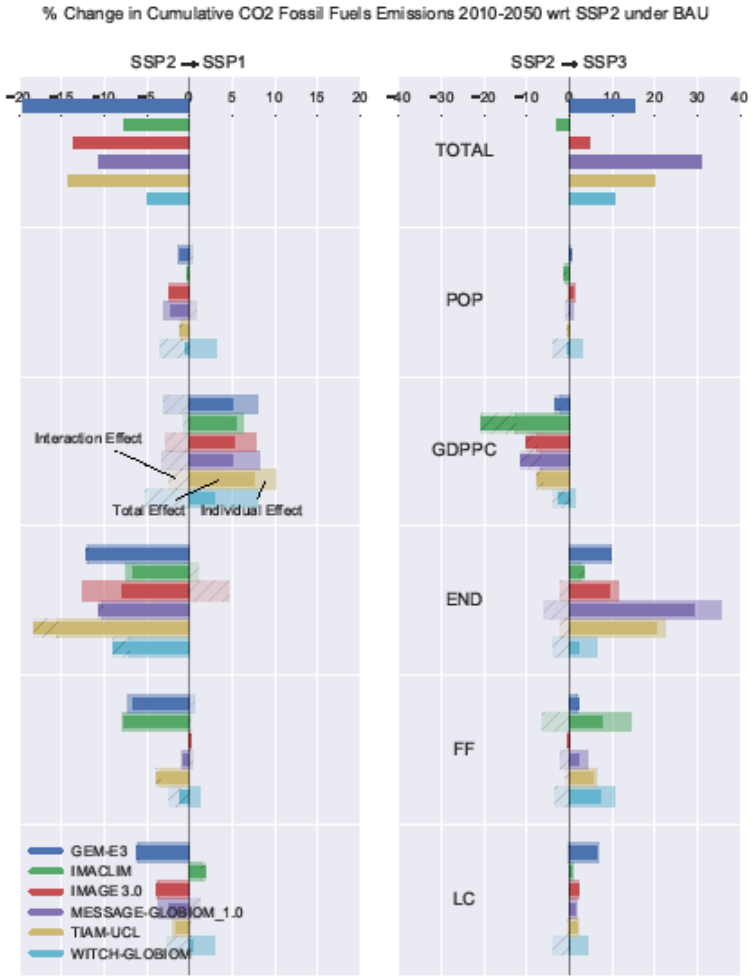




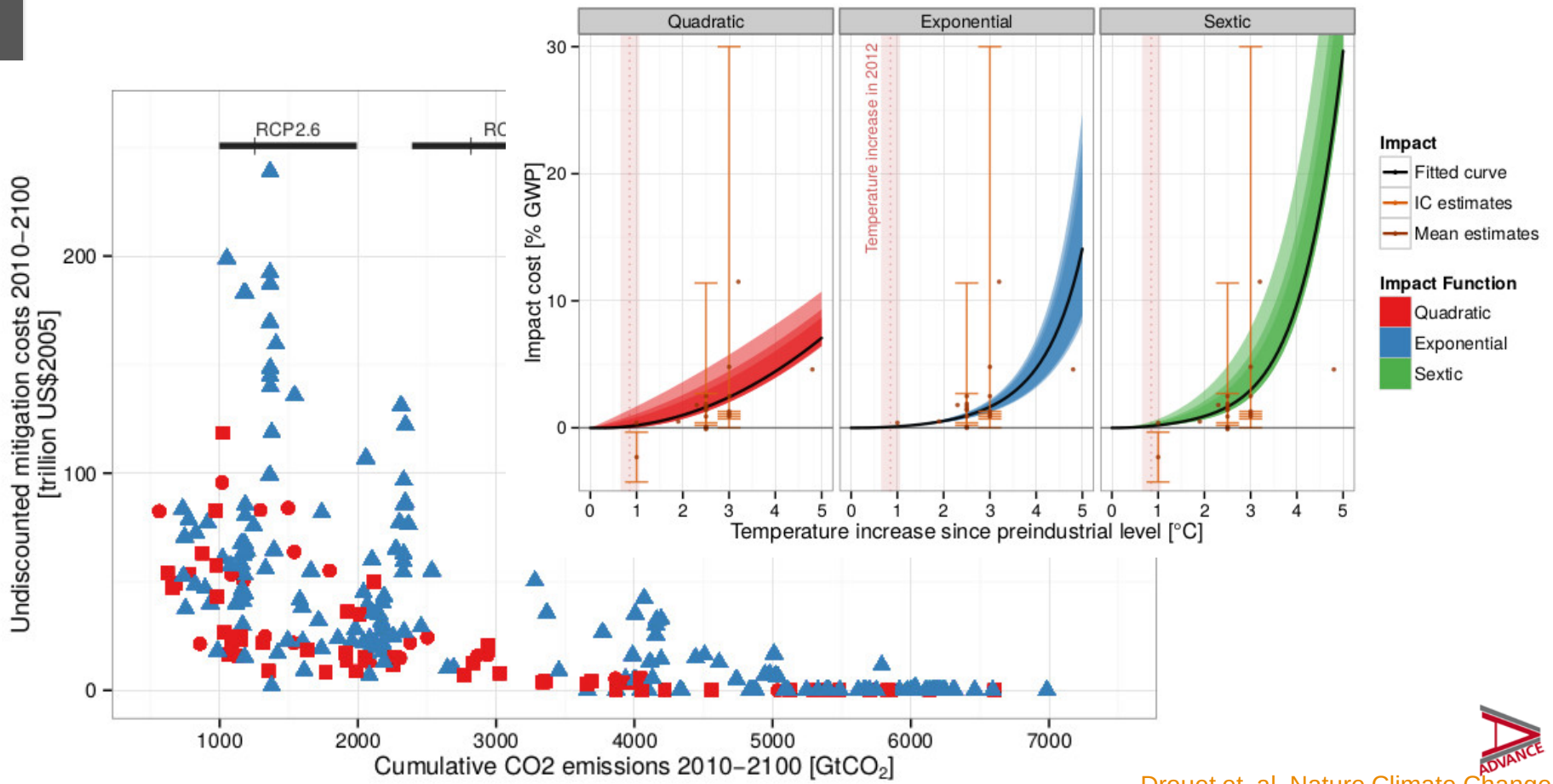
Projected SSP emissions



SSP Sensitivities

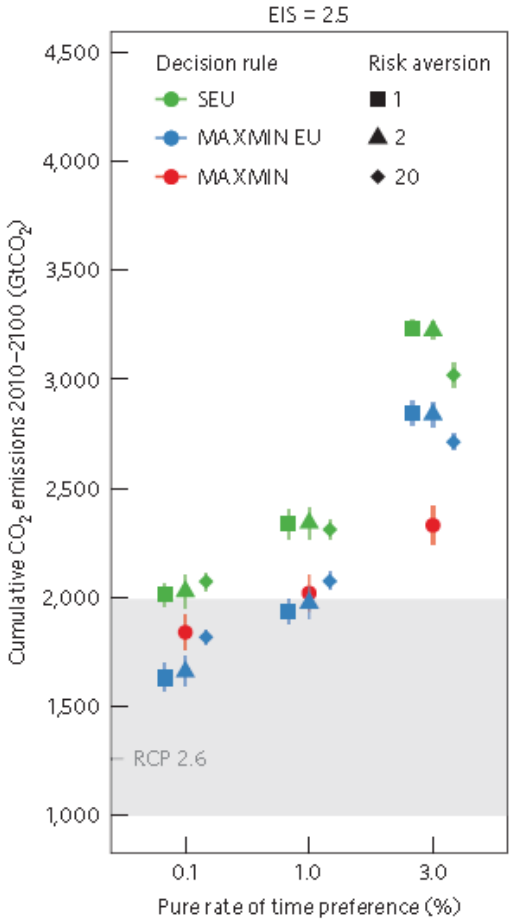


Irriducible uncertainty: costs and benefits



Drouet et. al, Nature Climate Change

Decision criteria under uncertainty: beyond expected utility



Conclusions

- Uncertainty is everywhere in climate change
- Both parametric and model uncertainties matter
    - multi + large model ensamble
- New methodologies and computational power can facilitate this
- Alternative decision making criteria beyond expected utility can and should be considered for climate change policy

Thanks!

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