

# Climate Emulators to Increase Access to Climate Information

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## Reliable and local climate information is not always easily accessible

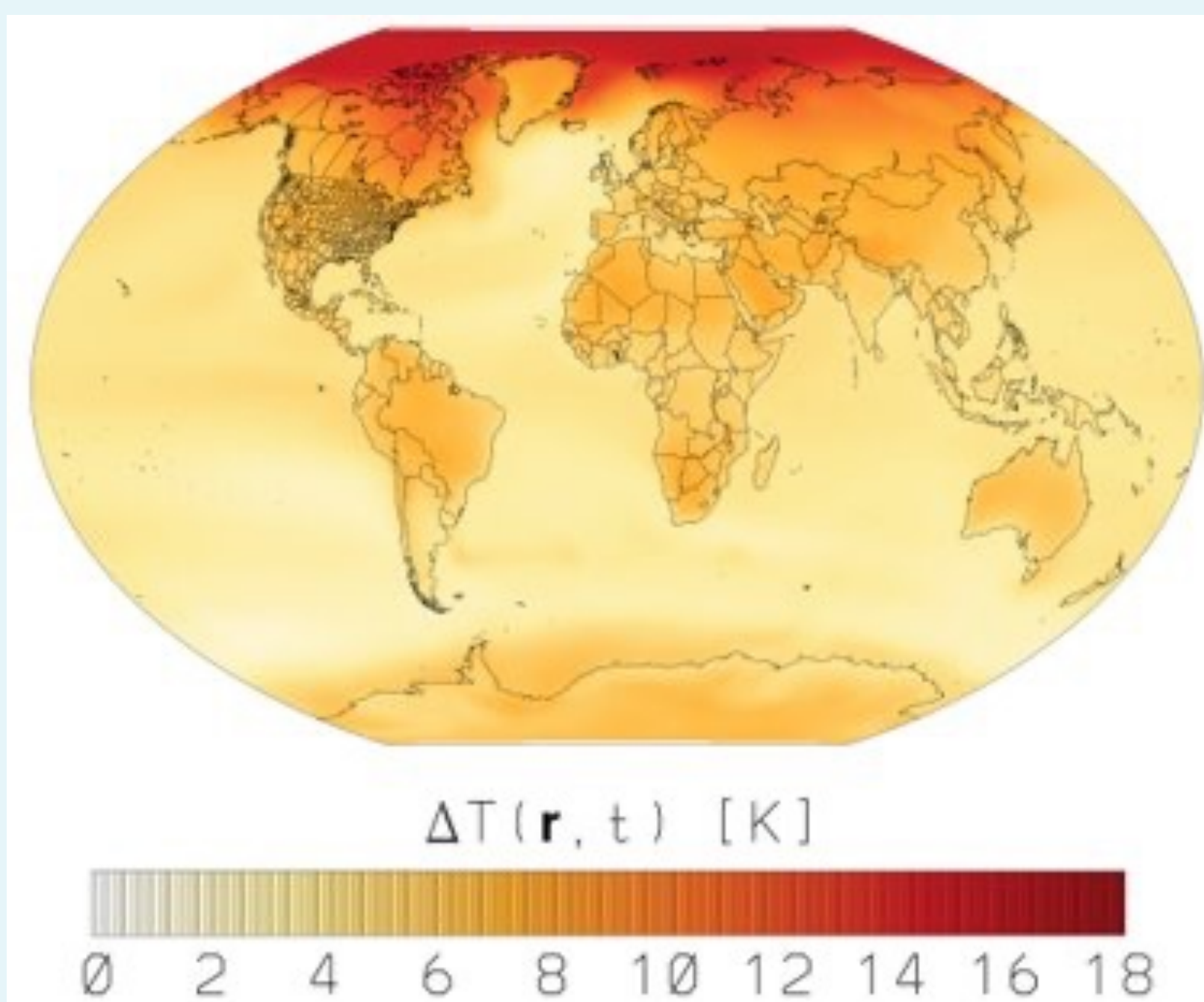
- How much warmer will Boston be at the end of the 21st century with current policies? **5F? 10F? 20F?**
- What will be **the tide level** in the new Seaport district (\$billions to build), which is at sea level currently?
- What will the **100-year return period storm** look like in the future in Boston?

Climate models are expensive...      ... Emulators are not!

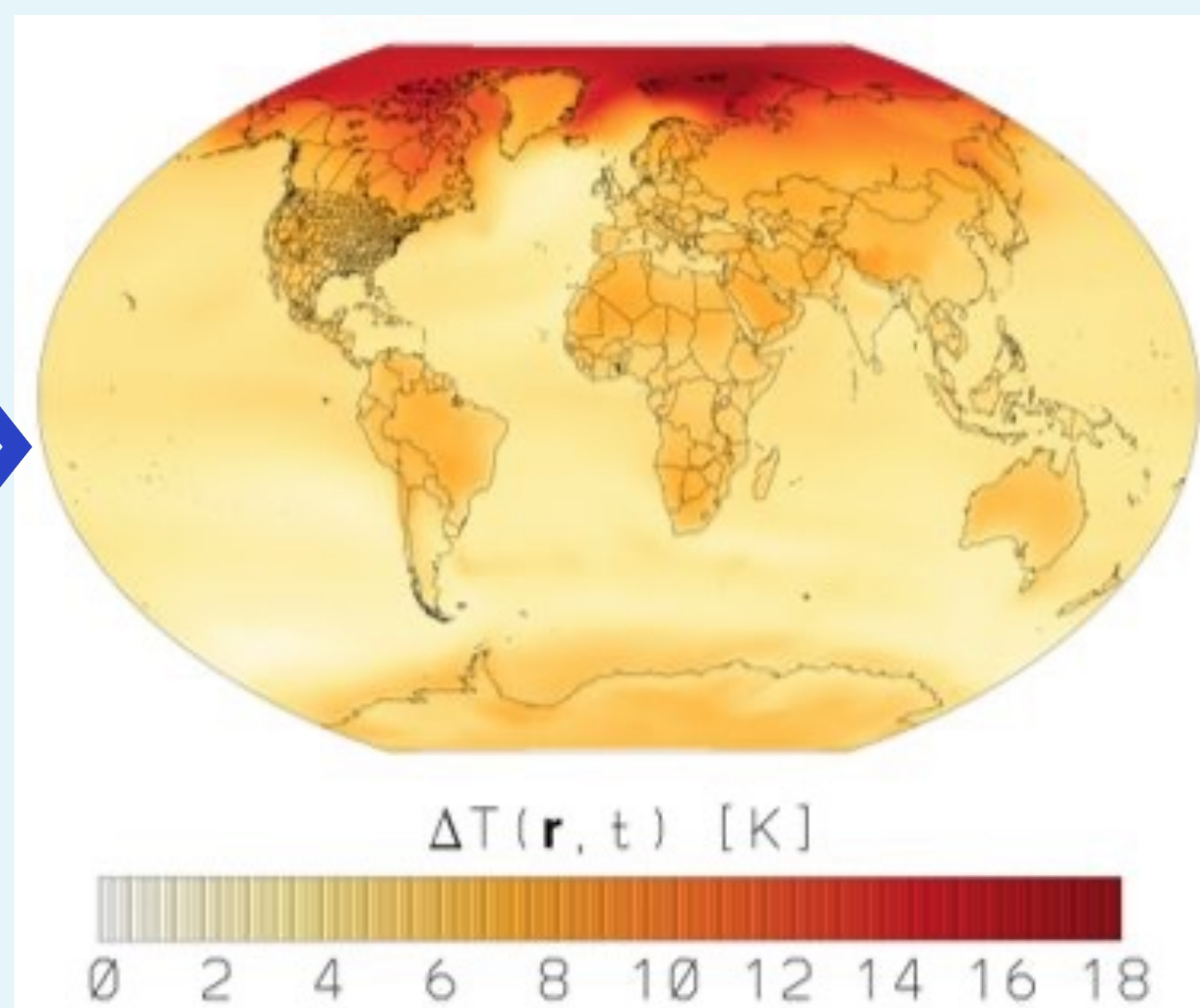


## Bringing Computation the Climate Challenge (BC3) project

Expensive projections from CMIP6 models

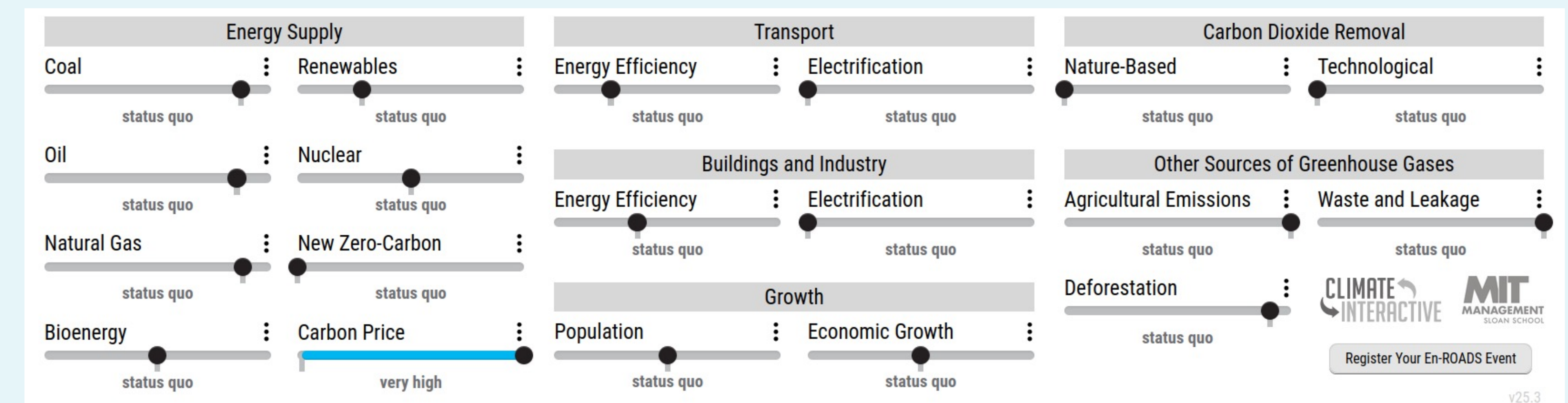
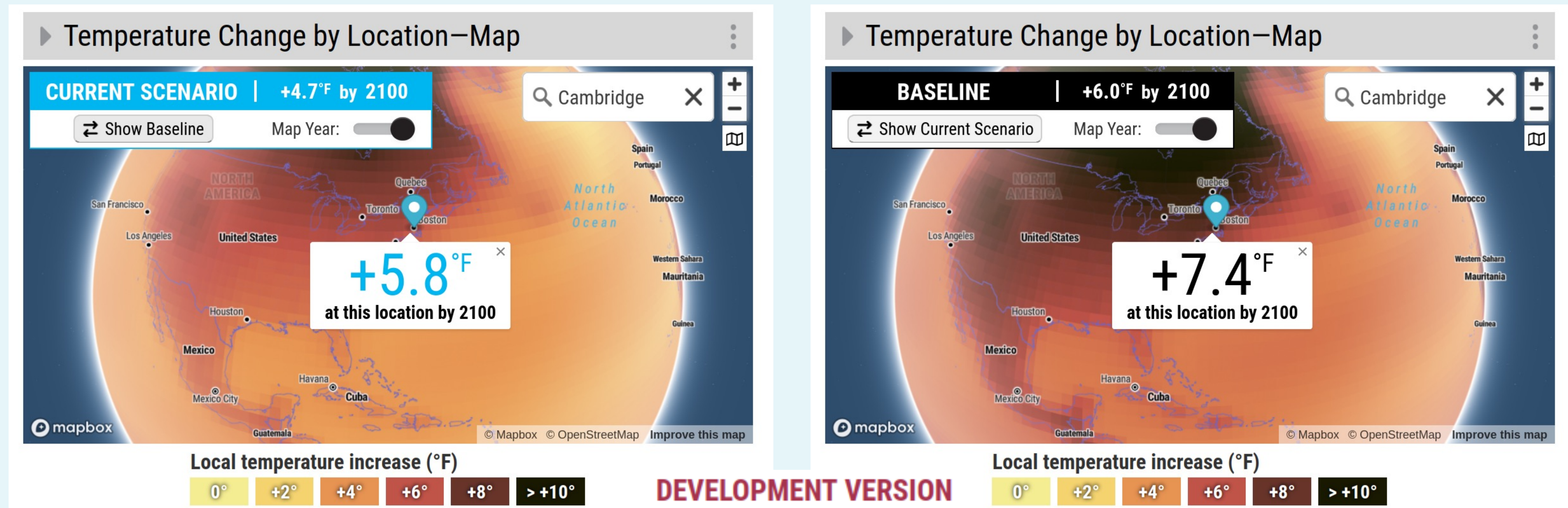


Fast projections from the BC3 team



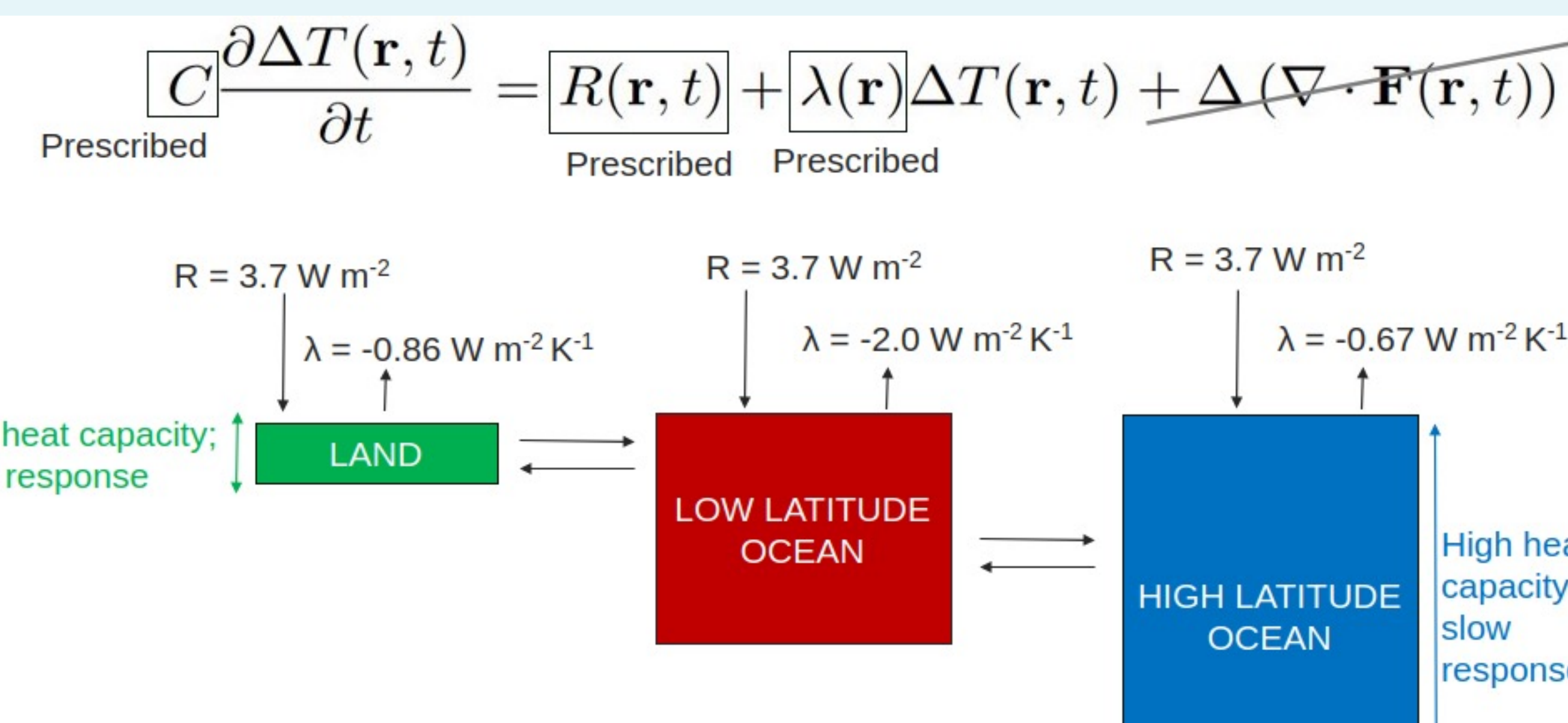
End-of-century (2085-2100) projections under a high emission scenario

## The BC3 team is developing fast approximations of climate models



## I use idealized models and theory to answer the 'why' questions underlying emulators, for instance:

- Why is the North Pole warming 3x more than average?
- Why is land warming more than the ocean?



## For more info:

- [bc3.mit.edu](http://bc3.mit.edu)
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