

Apr 2019; n~15

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Science

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Heat waves, like one in Australia in January, will get worse in a warming world. MATT KING/STRINGER/GETTY IMAGES

New climate models predict a warming surge

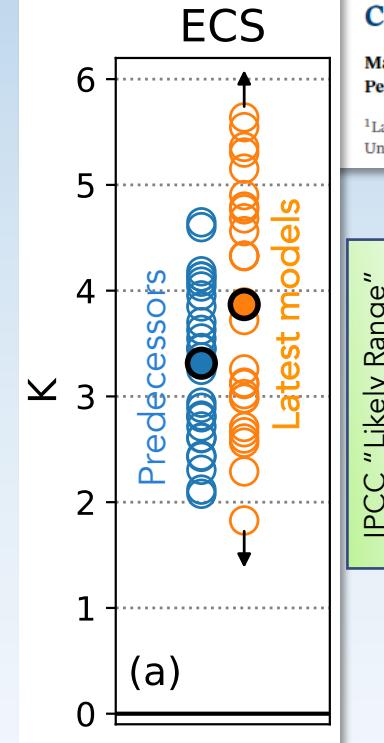
By Paul Voosen | Apr. 16, 2019, 3:55 PM

This work was performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under contract DE-AC52-07NA27344.
LLNL-PRES-817827

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Sep 2019; n=27

Geophysical Research Letters

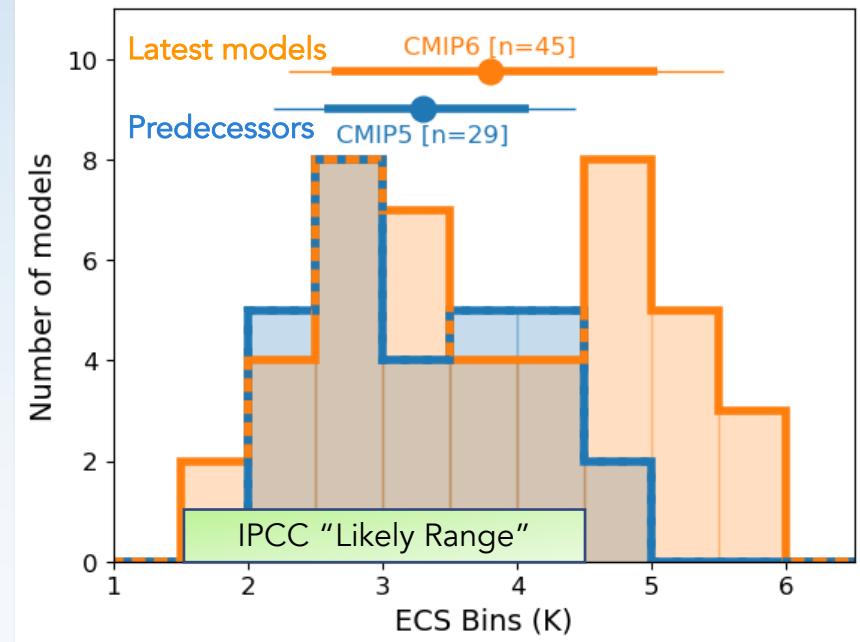


Causes of Higher Climate Sensitivity in CMIP6 Models

Mark D. Zelinka¹, Timothy A. Myers¹, Daniel T. McCoy², Stephen Po-Chedley¹, Peter M. Caldwell¹, Paulo Cepi³, Stephen A. Klein¹, and Karl E. Taylor¹

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Oct 2020; n=45



How were we able to (relatively quickly) inter-compare results from dozens of global climate model simulations performed all over the world, find out why they are more sensitive than their predecessors, and identify the root causes?



x100

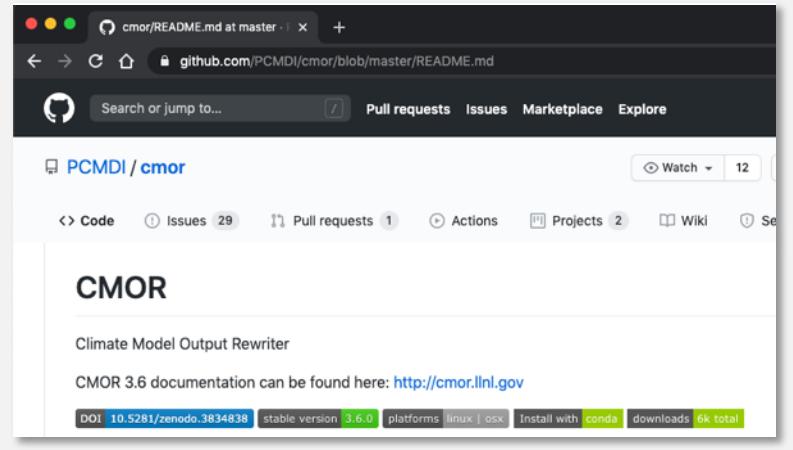
COORDINATED EXPERIMENTS



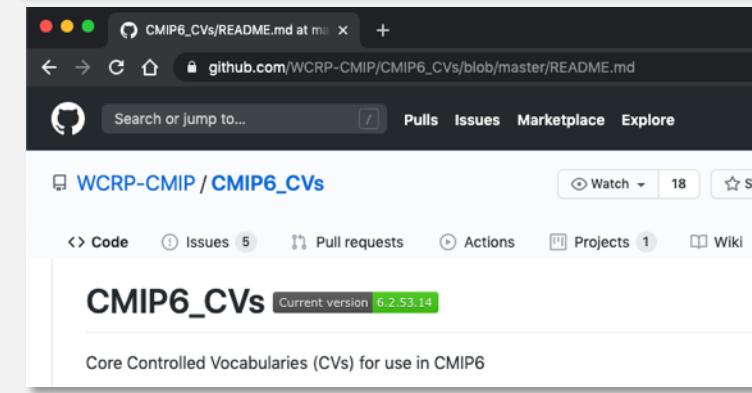
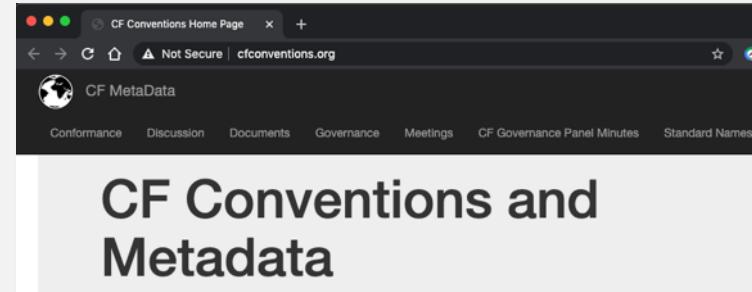
STANDARD INPUTS



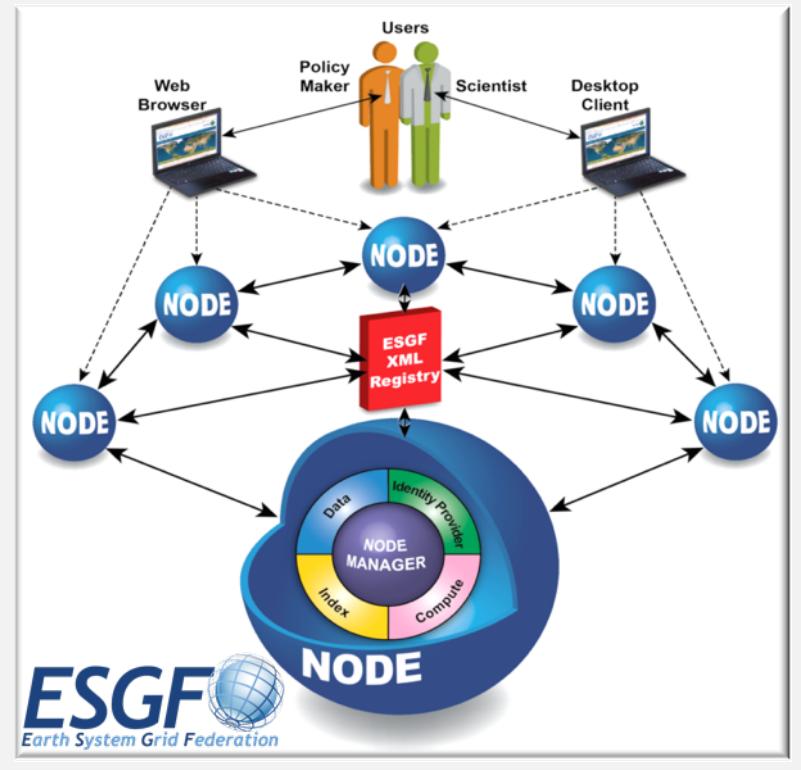
SOFTWARE TO PREPARE & CHECK OUTPUT



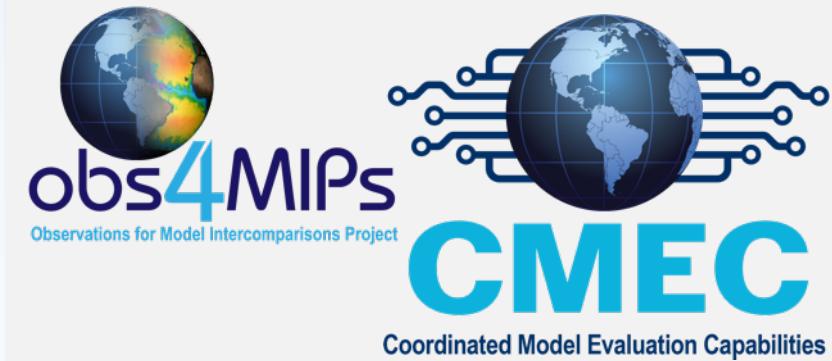
STANDARD OUTPUT (FIELDS, VOCABULARIES, FORMATS, ETC.)



DECENTRALIZED DATA DISTRIBUTION



COMMUNITY EVALUATION TOOLS



 **CMIP6** 7,332,043 total datasets 16,528.09 TB

 **CMIP6** 3,581,398 distinct datasets 9,441.88 TB

 **CMIP6** 3,750,645 replica datasets 7,086.22 TB

 **CMIP5** 201,129 total datasets 5,294.68 TB

 **CMIP5** 52,163 distinct datasets 1,527.12 TB

 **CMIP5** 148,966 replica datasets 3,767.56 TB

Modeling Centers (114)

CMIP6 Modeling Groups (click on flags to reveal identity)



Data Nodes (30)

CMIP6/ESGF contributors ★
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