COVID 19 Pandemic Impacts on Climate: GHGs, Aerosols and Aviation

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NCAR

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For Zoom information, please contact Tracy Baker tbaker@ucar.edu

For live stream information, visit the CGD Seminar Webpage

ABSTRACT

The ongoing COVID19 pandemic resulted in massive changes in society, which also led to emissions changes of climate relevant emissions, from greenhouse gases to air pollution and particulate emissions. These emissions changes have both short and long term effects on climate. This talk will provide an overview of observed and simulated effects on air quality and climate over the last year, from numerous studies. This includes two detailed studies with CESM, using a unique nudged and constrained ensemble framework to separate small climate signals from weather noise. Results indicate that changes in aerosols may have warmed the planet in 2020, and changes in aviation contrails may have cooled the planet.