JOHNS HOPKINS
Center for Environmental
& Applied Fluid Mechanics

# FALL 2020 CEAFM VIRTUAL SEMINAR

## *"Deep Convective Regions in the Ocean Play a Critical Role in Global Climate and Biogeochemistry"*


**Presented by Prof. Anand Gnanadesikan**

Morton K. Blaustein Chair
Johns Hopkins University Dept. of Earth and Planetary Science
Hosted by Charles Meneveau (JHU - MechE)



In most of the ocean, waters are stably stratified through much of the year. However in a few locations, surface waters become dense enough during the winter to generate deep convection that links the surface and deep ocean. In this talk I'll discuss recent work in my group describing a new description of a coupled mode of variability in Southern Ocean convection as well as the impact of changes of convection on biogeochemical responses to climate change.


Anand Gnanadesikan is an Earth System scientist who is currently the chair of the Morton K. Blaustein Dept. of Earth and Planetary Science. He looks at climate variability and the interaction between physical circulation in the ocean and the atmosphere, biosphere and cryosphere using Earth System Models of the class used for climate assessments. Areas of particular interest in recent years have included the representation of turbulent mixing in the ocean, the role of penetrating solar radiation and the representation of ocean-ice heat transport. Before joining Johns Hopkins in 2011, he spent 15 years at the Geophysical Fluid Dynamics Laboratory in Princeton, where he helped lead development of a new generation of models. He received a Ph.D. from the MIT/WHOI Joint program in Physical Oceanography in 1994.

Friday, September 18, 2020 at 3:00

https://wse.zoom.us/j/93762992307