

ID: H3-715

Type: Highlight talk

## and Challenges in Atmospheric Sciences

Thursday, 1 July 2021 13:30 (1 hour)

Our understanding of atmospheric processes has increased dramatically since the 19th century with important advances in observational techniques and global monitoring, numerical modeling as well as weather, climate and air quality forecasting. Efforts continue around the questions of atmospheric and climate predictability as well as the combined role of dynamical, physical and chemical processes from the lower to the upper atmosphere. The present paper will provide an historical perspective on the progress made during the last two centuries and highlight by some specific examples our ability to treat today complex questions related to the Earth system. The response of the atmospheric chemical system to the slowdown of the world economy during the COVID-19 pandemic will be presented to illustrate our current modeling and observational capability.

**Promotional text** 

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Track Classification: Backbone elements