(Sun.) October 3

[POSTER 1]

Date / Time **(Sun.) October 3, 2021 / 13:00-14:00 (UTC)**

Session Code **SUN1**

Session Chair **Wolfgang Steinbrecht, Ja-Ho Koo, Birgit Hassler**

[SUN1_1] 13:00-13:02

Interannual Variability of Antarctic Ozone using Ozonesonde Measurements from 2015 to 2020

Hana Lee[1], Seong-Joong Kim[2], Taejin Choi[2], Jhoon Kim[1], and Ja-Ho Koo[1]

[1]Yonsei University, Republic of Korea, [2]KOPRI, Republic of Korea

[SUN1_2] 13:02-13:04

Spatiotemporal Differences in Recovery of the Antarctic Ozone Hole using Satellite Observations

Dha Hyun Ahn[1] , Seong-Joong Kim[2] , Taejin Choi[2] , Jhoon Kim[1], and Ja-Ho Koo[1]

[1]Yonsei University, Republic of Korea, [2]KOPRI, Republic of Korea

[SUN1_4] 13:06-13:08

The Cause of the Spring Strengthening of the Antarctic Polar Vortex

Vladimir V. Zuev and Ekaterina Savelieva

IMCES SB RAS, Russia

[SUN1_5] 13:08-13:10

Relationships between Unusual Antarctic Ozone Hole in 2019 and Dynamical Fields

Guangyu Liu[1], Toshihiko Hirooka[1], Nawo Eguchi[1], and Krüger Kirstin[2]

[1]Kyushu University, Japan, [2]University of Oslo, Norway

[SUN1_6] 13:10-13:12

The Sudden Stratospheric Warming and Polar Processing of the Antarctic Winter 2019: Comparison with the Winters of 1988 and 2002

R. Roy[1,2], J. Kuttippurath[1], F. Lefèvre[3], S. Raj[1], and P. Kumar[1]

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[SUN1_7] 13:12-13:14

A CCM Forecast Experiments of the Ozone Reduction Event over the Southern Tip of South America in November 2009 using Ozone Assimilated Initial Data

Haruna Nakamura[1,2], Toshihiko Hoirooka[1], Hideharu Akiyoshi[3], Takafumi Sugita[3], and Akira Mizuno[4]

[1]Kyushu University, Japan, [2]Fujitsu Japan Corporation, Japan, [3]National Institute for Environmental Studies, Japan, [4]Nagoya University, Japan

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[SUN1_8] 13:14-13:16

Evaluation of Various Total Ozone Column Measurements at the King-Sejong and Jang Bogo station, Antarctica

Songkang Kim[1], Taejin Choi[2], Seong-Joong Kim[2], and Ja-Ho Koo[1]
[1]Yonsei University, Republic of Korea, [2]KOPRI, Republic of Korea

[SUN1_9] 13:16-13:18

Study on Antarctic Ozone Hole Influence over the Southern Brazil, by Combining Ground-Based, Satellite Observations and Model Simulations

Lucas Vaz Peres[1], Damaris Kirsch Pinheiro[2], Hassan Bencherif[3], Gabriela Dornelles Bittencourt[2], Thierry Portafaix[3], Nelson Bègue[3], José Valentin Bageston[4], Vagner Anabor[2], and Maria Paulete Pereira Martins[4]
[1]UFOPA, Brazil, [2]UFSM, Brazil, [3]LACy, France, [4]INPE, Brazil

[SUN1_10] 13:18-13:20

Evolution of the Stratospheric Polar Vortex in the Southern and Northern Hemispheres over the 1979–2020 Period

Audrey Lecouffe, Sophie Godin-Beekmann, Andrea Pazmiño, and Alain Hauchecorne
Sorbonne University, France

[SUN1_11] 13:20-13:22

Polar Stratospheric Clouds Detection over Belgrano II Antarctic Station from Ground-Based Visible DOAS Measurements

Laura Gomez-Martin[1], Daniel Toledo[1], Cristina Prados-Roman[1], Jose Antonio Adame[1], H. Ochoa[2], and Margarita Yela[1]
[1]National Institute for Aerospace Technology, Spain, [2]Argentinian Antarctic Institute, Argentina

[SUN1_12] 13:22-13:24

Investigation of Spring Breakup Dates and Polar Stratospheric Clouds Interannual Variability in Arctic stratosphere

P. Vargin[1], S. Kostrykin[2], E. Rakushina[3], E. Volodin[2], and A. Pogoreltsev[3]
[1]Central Aerological Observatory, Russia, [2]INM RAS, Russia, [3]Russian State Hydrometeorological University, Russia

[SUN1_13] 13:24-13:26

Mountain-Wave-Induced Polar Stratospheric Clouds and Their Representation in the Global Chemistry Model ICON-ART

Michael Weimer[1,2], Jennifer Buchmüller[2], Lars Hoffmann[3], Ole Kirner[2], Beiping Luo[4], Roland Ruhnke[2], Michael Steiner[5], Ines Tritscher[6], and Peter Braesicke[2]
[1]MIT, USA, [2]Karlsruhe Institute of Technology, Germany, [3]Jülich Supercomputing Centre, Germany, [4]ETH Zurich, Switzerland, [5]EMPA, Switzerland, [6]Institute of Energy and Climate Research: Stratosphere (IEK-7), Germany

[SUN1_14] 13:26-13:28

Record Low Ozone Values Observed in the Arctic in Spring 2020

Ingo Wohltmann[1], Peter von der Gathen[1], Ralph Lehmann[1], Marion Maturilli[1], Holger Deckelmann[1], Gloria Manney[2,3], Jonathan Davies[4], David Tarasick[4], Nis Jepsen[5], Rigel Kivi[6], Norrie Lyall[7], and Markus Rex[1]

[1]Alfred Wegener Institute for Polar and Marine Research, Germany, [2]Northwest Research Associates, USA, [3]New Mexico Tech, USA [4]Environment and Climate Change Canada, Canada, [5]Danish Meteorological Institute, Denmark, [6]Finnish Meteorological Institute, Finland, [7]Met Office, UK

[SUN1_15] 13:28-13:30

Simulation of Record Arctic Stratospheric Ozone Depletion in 2020

Jens-Uwe Grooß and Rolf Müller

Institute of Energy and Climate Research: Stratosphere (IEK-7), Germany

[SUN1_16] 13:30-13:32

Low Ozone VMR over the Northern Hemisphere in Winter 2019/20 - Effects of a Strong PSC Winter -

U. Raffalski[1], K.Blazaki[2], J. Gross[3], R. E. Kajtar[2], and M. Milz[2]

[1]Swedish Institute of Space Physics, Sweden, [2]Luleå Technical University, Sweden, [3]Karlsruhe Institute of Technology, Germany

[SUN1_17] 13:32-13:34

Observations of the 2020 Record-Breaking Ozone Holes and the Canadian Brewer and Pandora Programs

Xiaoyi Zhao[1], Vitali Fioletov[1], Michael Brohart[1], Volodya Savastiouk[2], Ihab Abboud[1], Akira Ogyu[1], Jonathan Davies[1], Reno Sit[1], Sum Chi Lee[1], Alexander Cede[3,4], Martin Tiefengraber[4,5], Moritz Müller[4,5], David Tarasick[1], Kristof Bognar[6], Ramina Alwarda[1,6,7], Kimberly Strong[6], Tim Holland[7], Joseph Samaniego[7], Marisa Gedney[7], and Johan Booth[7]

[1]Environment and Climate Change Canada, Canada, [2]International Ozone Services Inc., Canada, [3]NASA, USA, [4]LuftBlick, Austria, [5]University of Innsbruck, Austria, [6]University of Toronto, Canada, [7]NOAA, USA

[SUN1_18] 12:34-12:36

Evolution of Low Total Column Ozone Anomalies in Summer 2020 in the Northern Hemisphere Extratropics

Stacey M. Frith[1,2], Natalya Kramarova[2], Paul Newman[2], Eric Nash[1,2], Jerald Ziemke[2,3], and Susan E. Strahan[2,4]

[1]Science Systems and Applications, Inc., USA, [2]NASA, USA, [3]Morgan State University, USA, [4]USRA, USA

[SUN1_19] 13:36-13:38

Simulation of a 2020 Arctic Ozone Hole in the World Avoided by the Montreal Protocol

Catherine Wilka[1], Susan Solomon[2], Doug Kinnison[3], and David Tarasick[4]

[1]Stanford University, USA, [2]MIT, USA, [3]NCAR, USA, [4]Environment and Climate Change Canada, Canada

[SUN1_21] 13:40-13:42

Insights into the Linear Relationship between Extratropical Eddy Heat Flux and Polar Ozone Build-Up

Fumio Hasebe[1], Sayaka Kodera[2], and Hideharu Akiyoshi[3]

[1]Hokkaido University, Japan, [2]JMA, Japan, [3]National Institute for Environmental Studies, Japan

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[SUN1_22] 13:42-13:44

Analysis of Arctic Spring Ozone Anomaly in the Phases of QBO and 11-Year Solar Cycle for 1979–2017

Yousuke Yamashita[1,2], Hideharu Akiyoshi[1], and Masaaki Takahashi[1]
[1]National Institute for Environmental Studies, Japan, [2]JAMSTEC, Japan

[SUN1_23] 13:44-13:46

Dynamical Mechanism of QBO Modulation of Ozone Interannual Variability in the High-Latitude Upper Stratosphere in Boreal Spring

Jihoon Seo and Wookap Choi
Seoul National University, Republic of Korea

[SUN1_24] 13:46-13:48

High Vertical Resolution Modeling and its Impact on QBO Induced Changes in Ozone and Other Dynamically Important Trace Gases

Luke Oman[1], Olga Tweedy[1,2], and Susan Strahan[2]
[1]NASA, USA, [2]USRA, USA

[SUN1_25] 13:48-13:50

OMPS LP V2.0 Stratospheric Aerosol Extinction Profile Data Records

Ghassan Taha[1,3], Robert Loughman[2], and Tong Zhu[4]
[1]USRA, USA, [2]Hampton University, USA, [3]NASA, USA, [4]Science Systems and Applications Inc., USA

[SUN1_26] 13:50-13:52

O3as: An Ozone Trend Analysis Service within EOSC-Synergy

Tobias Kerzenmacher, Valentin Kozlov, Borja Esteban Sanchis, Ugur Cayoglu, Marcus Hardt, and Peter Braesicke
Karlsruhe Institute of Technology, Germany

[SUN1_27] 13:52-13:54

Stratospheric and Total Column Ozone from the Copernicus Atmosphere Monitoring Service (CAMS) Reanalysis of Atmospheric Composition

Antje Inness[1], Simon ASB, Richard Engelen[1], Johannes Flemming[1], Vincent Huijnen[3], Bavo Langenrock[2], Julien Nicolas[1], Vincent-Henri Peuch[1], Inna Polichtchouk[1], and Miha Razinger[1]
[1]ECMWF, UK, [2]BIRA-IASB, Belgium, [3]KNMI, The Netherlands

[SUN1_28] 13:54-13:56

AI for Fast Stratospheric Ozone Predictions

Helge Mohn[1], Daniel Kreyling[1], Ingo Wohltmann[1], Peter Maass[2], and Markus Rex[1]
[1]Alfred Wegener Institute Helmholtz-Center for Polar and Marine Research, Germany, [2]University of Bremen, Germany

[SUN1_29] 13:56-13:58

Deep Learning Forecast of Stratospheric Ozone Advection

Luiz-Angelo Steffenel[1], Vagner Anabor[2], Damaris Kirsch-Pinheiro[2], and Hassan Bencherif[3]
[1]University of Reims Champagne Ardenne, France, [2]UFSM, Brazil, [3]University of Reunion Island, France