

## V. Program Schedule

### ● (Mon.) October 4

#### [ORAL] Session A. Stratospheric Ozone Science

Date / Time (Mon.) October 4, 2021 / 12:00-12:50 (UTC)

Session Code MON1

Session Chair Wolfgang Steinbrecht, Ja-Ho Koo, Karin Kreher

**[MON1\_K]** 12:00-12:15

**Keynote** Polar Stratospheric Ozone: Recent Observations, Current Understanding, and Future Evolution

Ulrike Langematz

Institute of Meteorology, Freie Universität Berlin, Germany

**[MON1\_1]** 12:15-12:20

Polar Stratospheric Clouds: Satellite Observations, Processes, and Role in Ozone Depletion

Ines Tritscher<sup>1</sup>, Michael C. Pitts<sup>2</sup>, Lamont R. Poole<sup>3</sup>, Simon P. Alexander<sup>4</sup>, Francesco Cairo<sup>5</sup>, Martyn P. Chipperfield<sup>6</sup>, Jens-Uwe Groß<sup>1</sup>, Michael Höpfner<sup>7</sup>, Alyn Lambert<sup>8</sup>, Beiping Luo<sup>9</sup>, Sergey Molleker<sup>10</sup>, Andrew Orr<sup>11</sup>, Ross Salawitch<sup>12</sup>, Marcel Snels<sup>5</sup>, Reinholt Spang<sup>1</sup>, Wolfgang Woiwode<sup>7</sup>, and Thomas Peter<sup>9</sup>

<sup>1</sup>Institute of Energy and Climate Research: Stratosphere (IEK-7), Germany, <sup>2</sup>NASA, USA, <sup>3</sup>Science Systems and Applications, Inc., USA, <sup>4</sup>Australian Antarctic Division, Australia, <sup>5</sup>Istituto di Scienze dell'Atmosfera e del Clima, Italy, <sup>6</sup>University of Leeds, UK, <sup>7</sup>Institute of Meteorology and Climate Research, Germany, <sup>8</sup>CalTech, USA, <sup>9</sup>ETH Zurich, Switzerland, <sup>10</sup>Max Planck Institute for Chemistry, Germany, <sup>11</sup>British Antarctic Survey, UK, <sup>12</sup>University of Maryland, USA

**[MON1\_2]** 12:20-12:25

Variability and Trends in the Antarctic Ozone Hole: MLS Observations and Model Comparisons

Michael J. Schwartz<sup>1</sup>, Lucien Froidevaux<sup>1</sup>, Douglas E. Kinnison<sup>2</sup>, Charles G. Bardeen<sup>2</sup>, Nathaniel J. Livesey<sup>1</sup>, Michelle L. Santee<sup>1</sup>, Gloria L. Manney<sup>3,4</sup>, Alyn Lambert<sup>1</sup>, and Ryan A. Fuller<sup>1</sup>

<sup>1</sup>CalTech, USA, <sup>2</sup>NCAR, USA, <sup>3</sup>NorthWest Research Associates, USA, <sup>4</sup>New Mexico Tech, USA

**[MON1\_3]** 12:25-12:30

Evaluation of Interannual Variability of Arctic and Antarctic Ozone Loss Since 1989

Andrea Pazmiño<sup>1</sup>, Florence Goutail<sup>1</sup>, Jean-Pierre Pommereau<sup>1</sup>, Franck Lefèvre<sup>1</sup>, Sophie Godin-Beekmann<sup>1</sup>, Alain Hauchecorne<sup>1</sup>, Audrey Lecouffe<sup>1</sup>, Martyn Chipperfield<sup>2</sup>, Wuhu Feng<sup>2</sup>, Michel Van Roozendael<sup>3</sup>, Nis Jepsen<sup>4</sup>, Georg Hansen<sup>5</sup>, Rigel Kivi<sup>6</sup>, Kristof Bognar<sup>7</sup>, Kimberly Strong<sup>7</sup>, Kaley Walker<sup>7</sup>, and Steve Colwell<sup>8</sup>

<sup>1</sup>LATMOS/IPSL, UVSQ, Université Paris-Saclay, Sorbonne Université, CNRS, France, <sup>2</sup>University of Leeds, UK,

<sup>3</sup>BIRA-IASB, Belgium, <sup>4</sup>Danish Meteorological Institute, Denmark, <sup>5</sup>NILU, Norway, <sup>6</sup>Finnish Meteorological Institute, Finland, <sup>7</sup>University of Toronto, Canada, <sup>8</sup>British Antarctic Survey, UK

## **V. Program Schedule**

**[MON1\_4]** 12:30-12:35

### **Arctic Ozone Depletion in 2019/20: Roles of Chemistry, Dynamics and the Montreal Protocol**

Wuhu Feng<sup>1,2</sup>, Sandip S. Dhomse<sup>1,3</sup>, Carlo Arosio<sup>4</sup>, Mark Weber<sup>4</sup>, John P. Burrows<sup>4</sup>, Michelle L. Santee<sup>5</sup>, and Martyn P. Chipperfield<sup>1,3</sup>

<sup>1</sup>University of Leeds, UK, <sup>2</sup>NCAS, UK, <sup>3</sup>NCEO, UK, <sup>4</sup>University of Bremen, Germany, <sup>5</sup>CalTech, USA

**[MON1\_5]** 12:35-12:40

### **Recovery of Polar Stratospheric Ozone: Updated Metrics from Chemistry-Climate Simulations**

Martyn Chipperfeld<sup>1</sup>, Sandip S. Dhomse<sup>1</sup>, and Doug Kinnison<sup>2</sup>

<sup>1</sup>University of Leeds, UK, <sup>2</sup>NCAR, USA

**[MON1\_6]** 12:40-12:45

### **The Conundrum of the Recent Variations in Lower Stratospheric Ozone: An Update**

Andreas Chrysanthou<sup>1</sup>, Sandip S. Dhomse<sup>1</sup>, Wuhu Feng<sup>1</sup>, Yajuan Li<sup>2</sup>, Ryan Hossaini<sup>3</sup>, William T. Ball<sup>4</sup>, and Martyn Chipperfield<sup>1</sup>

<sup>1</sup>University of Leeds, UK, <sup>2</sup>Nanjing Xiaozhuang University, China, <sup>3</sup>University of Lancaster, UK, <sup>4</sup>TU Delft, The Netherlands

**[MON1\_7]** 12:45-12:50

### **Evidence that Tropical Total Column Ozone no Longer Represents Stratospheric Changes**

William T. Ball<sup>1,2</sup>, Gabriel Chioldo<sup>3</sup>, Justin Alsing<sup>4</sup>, Thomas Peter<sup>3</sup>, Jerald Ziemke<sup>5,6</sup>, Sean Davis<sup>7</sup>, Mohamadou Diallo<sup>8</sup>, Lucien Froidevaux<sup>9</sup>, Birgit Hassler<sup>10</sup>, Till Hoffmann<sup>11</sup>, Daan Hubert<sup>12</sup>, and James Keeble<sup>13,14</sup>

<sup>1</sup>TU Delft, The Netherlands, <sup>2</sup>De Bilt, The Netherlands, <sup>3</sup>ETH Zurich, Switzerland, <sup>4</sup>Stockholm University, Sweden, <sup>5</sup>NASA, USA, <sup>6</sup>Morgan State University, USA, <sup>7</sup>NOAA, USA, <sup>8</sup>Forschungszentrum Jülich, Germany, <sup>9</sup>CalTech, USA, <sup>10</sup>DLR, Germany, <sup>11</sup>Imperial College London, UK, <sup>12</sup>BIRA-IASB, Belgium, <sup>13</sup>University of Cambridge, UK, <sup>14</sup>NCAS, University of Cambridge, UK