

### [ORAL] Session E. Ozone Monitoring and Measurement Techniques

Date / Time (Thu.) October 7, 2021 / 12:55-13:45 (UTC)

Session Code THU2

Session Chair Yugo Kanaya

[THU2\_1] 12:55-13:00

#### The World Brewer Reference Triads and Uncertainties in Primary Calibration

Xiaoyi Zhao<sup>1</sup>, Vitali Fioletov<sup>1</sup>, Michael Brohart<sup>1</sup>, Volodya Savastiouk<sup>2</sup>, Ihab Abboud<sup>1</sup>, Akira Ogyu<sup>1</sup>, Jonathan Davies<sup>1</sup>, Reno Sit<sup>1</sup>, Sum Chi Lee<sup>1</sup>, Alexander Cede<sup>3,4</sup>, Martin Tiefengraber<sup>4,5</sup>, Moritz Müller<sup>4,5</sup>, Debora Griffin<sup>1</sup>, and Chris McLinden<sup>1</sup>

<sup>1</sup>Environment and Climate Change Canada, Canada, <sup>2</sup>International Ozone Services Inc., Canada, <sup>3</sup>NASA, USA, <sup>4</sup>LuftBlick, Austria, <sup>5</sup>University of Innsbruck, Austria

[THU2\_2] 13:00-13:05

#### The Official Version 1.8 Direct Sun Total Column Ozone Product of Pandora within the Pandonia Global Network (PGN)

Martin Tiefengraber<sup>1,2</sup>, Alexander Cede<sup>1,3</sup>, Manuel Gebetsberger<sup>1</sup>, Moritz Müller<sup>1</sup>, and Alberto Redondas<sup>4</sup>

<sup>1</sup>LuftBlick, Austria, <sup>2</sup>University of Innsbruck, Austria, <sup>3</sup>NASA, USA, <sup>4</sup>AEMET, Spain

[THU2\_3] 13:05-13:10

#### Ground-Based Validation of GEMS Ozone Column and Profile Data

Arno Keppens<sup>1</sup>, Gaia Pinardi<sup>1</sup>, Tjil Verhoelst<sup>1</sup>, Daan Hubert<sup>1</sup>, Corinne Vigouroux<sup>1</sup>, Bavo Langerock<sup>1</sup>, Minqiang Zhou<sup>1</sup>, Jean-Christopher Lambert<sup>1</sup>, Pucui Wang<sup>2</sup>, Youwen Sun<sup>2</sup>, Cheng Liu<sup>3</sup>, Isao Murata<sup>4</sup>, Hideaki Nakajima<sup>5</sup>, Isamu Morino<sup>5</sup>, Tomoo Nagahama<sup>6</sup>, and the GEMS AO Validation Team

<sup>1</sup>BIRA-IASB, Belgium, <sup>2</sup>Chinese Academy of Sciences, China, <sup>3</sup>University of Science and Technology of China, China, <sup>4</sup>Tohoku University, Japan, <sup>5</sup>National Institute for Environmental Studies, Japan, <sup>6</sup>Nagoya University, Japan

[THU2\_4] 13:10-13:15

#### Optimized Umkehr Profile Algorithm for Ozone Trend Analyses

Irina Petropavlovskikh<sup>1,2</sup>, Koji Miyagawa<sup>2</sup>, Audra McClure-Begley<sup>1,2</sup>, Bryan Johnson<sup>2</sup>, Jeannette Wild<sup>3,4</sup>, Susan Strahan<sup>5,6</sup>, Krzysztof Wargan<sup>6,7</sup>, Richard Quere<sup>8</sup>, Lawrence Flynn<sup>9</sup>, Eric Beach<sup>10</sup>, and Sophie Godin-Beekmann<sup>11</sup>

<sup>1</sup>CIRES/NOAA, USA, <sup>2</sup>NOAA/GML, USA, <sup>3</sup>CISESS/NOAA, USA, <sup>4</sup>NOAA/NWS/NCEP/CPC, USA, <sup>5</sup>USRA, USA, <sup>6</sup>NASA/GSFC, USA, <sup>7</sup>SSI Inc., USA, <sup>8</sup>NIWA, New Zealand, <sup>9</sup>NOAA/STAR, USA, <sup>10</sup>IMSG, USA, <sup>11</sup>LASP/IPSL, France

## V. Program Schedule

[THU2\_5]

13:15-13:20

### **Implementation of a New Value of the Ozone Absorption Cross-Section per Molecule at 253.65 nm (Air) for Global Atmospheric Ozone Measurement**

Paul J. Brewer<sup>1</sup>, Andrew S. Brown<sup>1</sup>, Sangil Lee<sup>2</sup>, Joele Viallon<sup>3</sup>, Robert I. Wielgosz<sup>3</sup>, Joseph J. Hodges<sup>4</sup>, Jennifer Carney<sup>4</sup>, James Norris<sup>4</sup>, Louise Sorensen<sup>5</sup>, Joann Rice<sup>6</sup>, Christoph Zellweger<sup>7</sup>, Hiroshi Tanimoto<sup>8</sup>, and Bernhard Niederhauser<sup>9</sup>

<sup>1</sup>National Physical Laboratory, UK, <sup>2</sup>Korea Research Institute of Standards and Science, Republic of Korea, <sup>3</sup>Bureau International des Poids et Mesures, France, <sup>4</sup>National Institute of Standards and Technology, USA, <sup>5</sup>California Air Resources Board, USA, <sup>6</sup>Environmental Protection Agency, USA, <sup>7</sup>Swiss Federal Laboratories for Materials Science and Technology, Switzerland, <sup>8</sup>National Institute for Environmental Studies, Japan, <sup>9</sup>Federal Institute of Metrology, Switzerland

[THU2\_6]

13:20-13:25

### **The 25<sup>th</sup> Anniversary of the Juelich Ozone Sonde Intercomparison Experiment (JOSIE): 25 Years of Ozonesonde QA/QC and Data Quality Improvements**

Herman G.J. Smit<sup>1</sup>, Anne M. Thompson<sup>2</sup>, Bryan J. Johnson<sup>3</sup>, Jonathan Davies<sup>4</sup>, David W. Tarasick<sup>4</sup>, Jacqueline C. Witte<sup>5</sup>, René Stuebi<sup>6</sup>, Roeland Van Malderen<sup>7</sup>, Ryan M. Stauffer<sup>2</sup>, Holger Voemel<sup>5</sup>, Peter von der Gathen<sup>8</sup>, Debra E. Kollonige<sup>2</sup>, Samuel J. Oltmans<sup>3</sup>, Francis J. Schmidlin<sup>2</sup>, Bruno Hoegger<sup>6</sup>, Gary Morris<sup>9</sup>, Rigel Kivi<sup>10</sup>, Tatsumi Nakano<sup>11</sup>, Richard Querel<sup>12</sup>, Marc Allaart<sup>13</sup>, and many more members of the JOSIE-ASOPOS-O3SDQA Teams

<sup>1</sup>Institute of Energy and Climate Research: Troposphere (IEK-8), Germany, <sup>2</sup>NASA, USA, <sup>3</sup>NOAA, USA, <sup>4</sup>Environment and Climate Change Canada, Canada, <sup>5</sup>NCAR, USA, <sup>6</sup>MeteoSwiss, Switzerland, <sup>7</sup>Royal Meteorological Institute of Belgium, Belgium, <sup>8</sup>Alfred Wegener Institute, Germany, <sup>9</sup>St. Edward's University, USA, <sup>10</sup>Finnish Meteorological Institute, Finland, <sup>11</sup>JMA, Japan, <sup>12</sup>NIWA, New Zealand, <sup>13</sup>KNMI, The Netherlands

Q&A

13:25-13:45