

Agenda CCMVal 2007 Workshop

University of Leeds, Leeds, UK; June 26-28, 2007

The CCMVal 2007 workshop will take place in the School of Chemistry Lecture Theatre A at the University of Leeds. The Posters and refreshments will take place in the main court of the Parkinson Building. These two buildings are next to each other on Woodhouse Lane (number 2 on the map: http://www.see.leeds.ac.uk/contact/find_us/campus.htm).

Monday, 25 June 2007

17:00 onwards **Registration, and poster set-up**
18:00 – 20:00 **Icebreaker**

Tuesday, 26 June 2007

08:00 - 09:00 **Registration and poster set-up**

Introduction

Chair: **David Fahey**

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|---------------|---|---|
| 09:00 - 09:10 | Welcome and Logistics | Dwayne Heard, M. Chipperfield & P. Forster |
| 09:10 - 09:20 | The Role of CCMVal within SPARC & WCRP | Ted Shepherd |
| 09:20 - 09:35 | CCMVal Status and Workshop Goals | Veronika Eyring |

Introduction to Breakout Groups

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|---------------|---|-------------------------|
| 09:35 – 09:50 | Group I: New CCMVal Reference Simulations | Paul Newman |
| 09:50 - 10:05 | Group II: CCMVal Tools and Data | Andrew Gettelman |
| 10:05 - 10:20 | Group III: Standard for CCMVal Performance | Steven Pawson |
| 10:20 - 10:35 | Group IV: CCMVal SPARC Report | Darryn Waugh |
| 10:35 - 11:00 | <i>Coffee</i> | |
| 11:00 - 11:20 | Outstanding Science Questions WMO 2006 | Bill Randel |

State and future of CCMs

Chair: **Ted Shepherd**
Rapporteur: **Hideharu Akiyoshi**

CCMVal 2007 Agenda

What sort of model configuration the CCM groups plan to use for the next round of assessments, e.g. coupled to ocean, with tropospheric chemistry, changes in model configuration compared to WMO 2006, what time period, how much capacity for different scenarios, etc. ?

Groups will be asked to send in 2-3 slides in advance, to be assembled into a single presentation along with a set of questions. Preferably and if they have a representative there, then someone from the group should stand up and present that group's slides.

11:20 - 12:45 **State and future of CCMs** (approx. 15 CCM groups)

12:45 - 14:00 *Lunch*

Research in Coupled Chemistry Climate Modeling (Transport & UTLS)

Chair: **Ulrike Langematz**
Rapporteur: **Andrew Gettelman**

14:00 – 14:15 **Persistence and photochemical decay of springtime total ozone anomalies in CCMs** **Susann Tegtmeier** (B1)

14:15 – 14:30 **Relationships among age-of-air, chlorofluorcarbon loss and mixing ratio boundary conditions in assessment simulations** **Anne Douglass** (B3)

14:30 – 14:45 **O3-N2O correlations: Revisiting a diagnostic of transport and chemistry in the stratosphere** **Michaela Hegglin** (B2)

14:45 – 15:00 **A new method to deduce stratospheric transport times from observations and models** **Peter Hoor** (B5)

15:00 – 15:15 **Diagnostics for seasonally varying and seasonally invariant transport in the lowermost stratosphere** **Susan Strahan** (C8)

15:15 – 15:30 **Tropical Tropopause Layer Structure in CCMs** **Andrew Gettelman** (C10)

15:30 – 15:45 **An approach to validate the transport of water vapour through the tropical tropopause in CCMs** **Stefanie Kremser** (C11)

15:45 – 16:00 **Variability and trends in global tropopause Parameters** **Thomas Birner** (C13)

16:00 - 16:20 *Tea*

16:20 – 18:20 **Poster session**

18:20 – 19:00 **Side Meeting with Lead Authors of the SPARC CCMVal Report**

Wednesday, 27 June 2007

Breakout Sessions I-III in parallel

Chairs & Rapporteurs:

Group I: New CCMVal Reference Simulations

Group II: CCMVal Tools and Data

Group III: Standard for CCMVal Performance

Paul Newman & Martyn Chipperfield

Andrew Gettelman & Neal Butchart

Steven Pawson & David Fahey

09:00 - 10:30 **Breakout Groups I-III**

09:00 - 09:15 **Talk in Breakout Group II: Martin Jukes
The role of BADC in CCMVal: possibilities and limitations (I1)**

10:30 - 11:00 *Coffee*

11:00 - 12:00 **Plenary Discussion on Breakout Groups I-III**

12:00 - 13:15 *Lunch*

Research in Coupled Chemistry Climate Modeling (Stratospheric Chemistry & Long-term Changes)

13:15 - 14:30 **Poster session**

Chair: Markus Rex
Rapporteur: Martyn Chipperfield

14:30 – 14:45 **Simple measures of ozone depletion in the polar stratosphere (E1) Rolf Müller**

14:45 – 15:00 **The impact of mixing across the polar vortex edge on ozone loss estimates: Implication for the validation of CCMs (E8) Jens-Uwe Grooss**

15:00 – 15:15 **Evaluation of Chemical Polar Ozone Loss in the Lower Stratosphere within CCM Models (E9) Simone Tilmes**

15:15 – 15:30 **Inorganic Chlorine and Ozone Recovery in CCMs (G2) Darryn Waugh**

15:30 - 16:00 *Tea*

16:00 – 16:15 **Quantifying key sensitivities within CCMs as a means of CCM validation (G7) Greg Bodeker**

16:15 – 16:30 **Diagnostic tests of polar ozone recovery (G10) Paul Newman**

16:30 – 16:45 **Volcano-induced Climate Impacts and ENSO Interaction (H1) Georgiy Stenchikov**

Breakout Session IV

Chairs & Rapporteurs Breakout Group IV: Veronika Eyring, Ted Shepherd & Darryn Waugh

16:45 – 18:30 **Breakout Session IV: CCMVal SPARC Report (0.5 hours in plenary, to discuss the overall structure and timetable, followed by 1.0 hour in chapter groups)**

Thursday, 28 June 2007

Research in Coupled Chemistry Climate Modeling (Dynamics & Natural Variability)

Chair: John Scinocca
Rapporteur: Hideharu Akiyoshi

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|---------------|---|------------------------|
| 09:00 – 09:15 | Evaluation of the response of the stratosphere to ENSO events in CCMs (A2) | Chiara Cagnazzo |
| 09:15 – 09:30 | Winter Climate Response to ENSO in three chemical-climate models (F3) | Andreas Fischer |
| 09:30 – 09:45 | The Role of the QBO in Simulating the Solar Signal in the Atmosphere (F2) | Katja Matthes |
| 09:45 – 10:00 | Coupled chemistry climate model simulations of the solar cycle in ozone and temperature (F1) | John Austin |
| 10:00 – 10:15 | The CMAM transient simulations for CCMVal: Analysis of long-term changes in ozone (G11) | David Plummer |
| 10:15 - 10:45 | <i>Coffee</i> | |

Breakout Sessions IV (Continued)

Chairs & Rapporteurs Breakout Group IV: Veronika Eyring, Ted Shepherd & Darryn Waugh

10:45 – 12:45 **Breakout Session IV: CCMVal SPARC Report (1 hour in chapter groups, followed by ¾ hour in plenary)**

12:45 - 14:00 *Lunch*

Research in Coupled Chemistry Climate Modeling (Continued)

Chair: Doug Kinnison
Rapporteur: Markus Rex

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|---------------|---|-------------------------|
| 14:00 – 14:15 | Sulfur injections into the stratosphere to alter the atmospheric chemical and dynamical state (E3) | Thomas Peter |
| 14:15 – 14:30 | The Potential Impact of Aerosols in the Upper Troposphere on Ice Clouds (C3) | Joyce Penner |
| 14:30 – 14:45 | A long-term climatology of transport processes in the TTL during NH winter (C2) | Kirstin Krueger |
| 14:45 – 15:00 | Ozone Radiative Feedback on the Quasi-Biennial Oscillation (A5) | Kiyotaka Shibata |
| 15:00 – 15:15 | The SPARC Dynamics and Variability Project and Connections to CCMVal (A9) | Paul Kushner |
| 15:15 - 15:45 | <i>Tea</i> | |

Final Session

Chairs: Chairs of Breakout Groups I-IV
Rapporteurs: CCMVal Steering Committee

- 15:45 - 17:00 **Refinement and approval in plenary for Breakout Groups I to IV**

Chairs: Veronika Eyring & Neil Harris
Rapporteurs: CCMVal Steering Committee

- 17:00 - 18:00 **Final Plenary Discussion**

19:30 *Conference banquet in Weetwood Hall* <http://www.weetwood.co.uk/weetwood.html>

Friday, 29 June 2007

- 09:00 - 12:30 **CCMVal Steering Committee Meeting**

Proposed Breakout Groups:

Breakout Group I: New CCMVal Reference and Sensitivity Simulations in Support of Upcoming Ozone and Climate Assessments

- Needs of assessments, timeframe
- Possible scenarios
- Forcing data sets

Breakout Group II: CCMVal Diagnostic Tools, Data Archiving and Data Formats

- Formats for next set of runs
- Development of a standard CCMVal diagnostic package from tables: who will use it, who will help develop it?

Breakout Group III: Define a Strategy for Developing Standards for CCMVal Performance

- Consider defining a threshold level of performance or weighting for those models that are used to make the next assessment predictions.

Breakout Group IV: SPARC CCMVal Report on CCM Evaluation

- Purpose and structure of the report, time schedule, main science questions etc.
Discuss specific diagnostics, validation and analysis activities in each chapter

LIST OF POSTERS

1. A1 (Erbertseder)
2. A3 (George)
3. A4 (Butchart)
4. A6 (Hegglin)
5. A7 (Charlton)
6. B4 (Bruehl)
7. C1 (Kunze)
8. C4 (Khosrawi)
9. C5 (Teyssedre)
10. C6 (Saint-Martin)
11. C7 (Pitari)
12. C9 (Tilmes)
13. C12 (Olivie)
14. C14 (Son)
15. D1 (Forster)
16. D2 (Forster)
17. D3 (Tourpali)
18. E2 (Stenke)
19. E5 (Ruhnke)
20. E6 (Liang)
21. E7 (Rex)
22. E10 (Tian)
23. F4 (Akiyoshi)
24. F5 (Mieruch)
25. G1 (Eyring)
26. G3 (Austin)
27. G4 (Oman)
28. G5 (Jonsson)
29. G6 (Rozanov)
30. G8 (Cordero)
31. G9 (Jegou)
32. G12 (Akiyoshi)
33. G13 (Stolarski)
34. G14 (Kenzelmann)
35. G15 (Nielsen)
36. H2 (Krueger)
37. H3 (Damoah)
38. H4 (Tian)