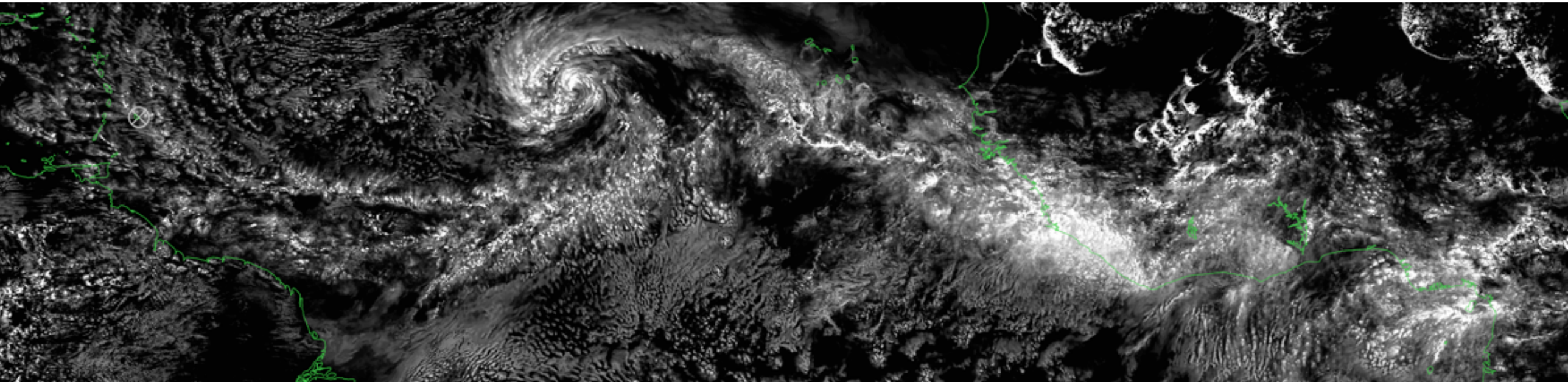
GASS
Global Atmospheric System Studies

Daniel Klocke & Xubin Zeng



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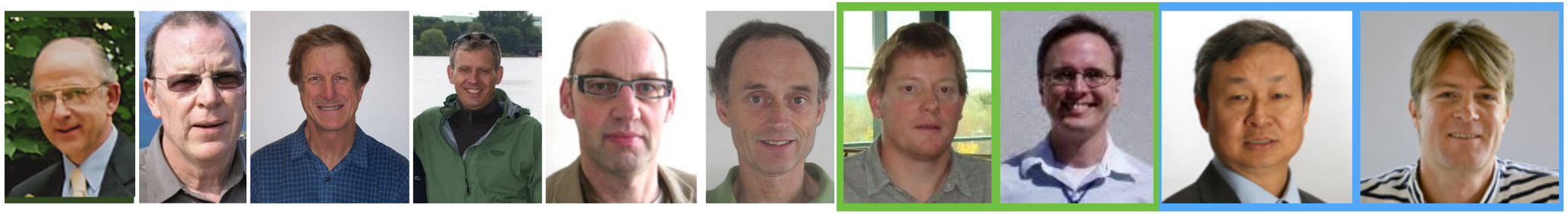


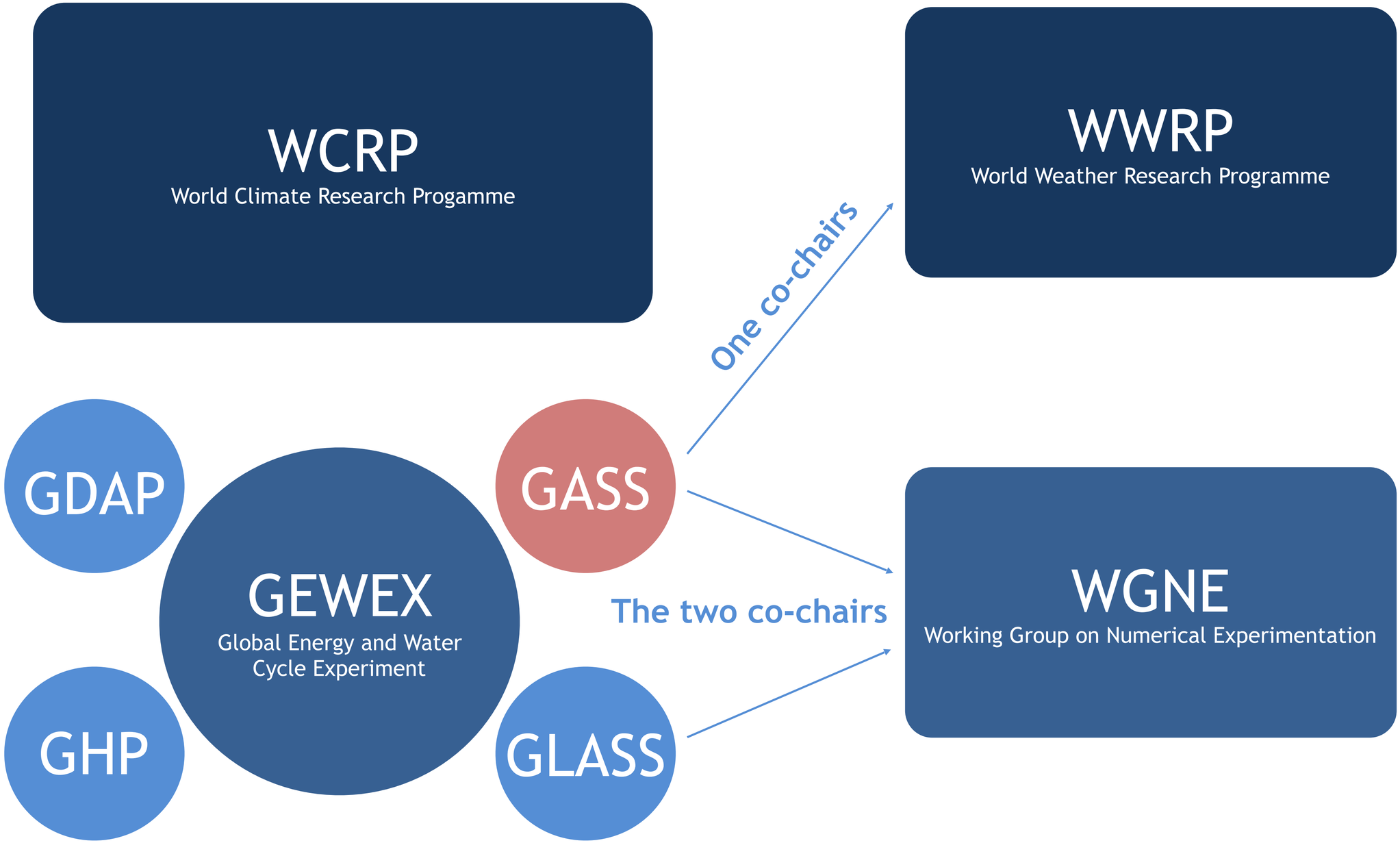
GCSS → GASS →

GABLS → CIRC

ICRCCM → CIRC

Radiation
Micro-physics
Clouds
Boundary layer
Convection

Xubin Zeng Daniel Klocke



GASS: Global Atmospheric System Studies GLASS: Global Land/Atmospheric System Studies
GHP: GEWEX Hydroclimatology Panel GDAP: GEWEX Data and Assessments Panel

Interests questions and directions of future projects:

- adapting a more integrated view (processes + system)
- Grey Zone follow up
- where does WGNE start and GASS/GLASS stop?
- Cooperation with CFMIP, ACPC, GAP and others
- WWRP link

- **Coupling dynamics with physics:** (e.g., surface-boundary layer-convection coupling, Madden-Julian Oscillation)
- **Mechanisms for the diurnal cycle of precipitation** over different regions
- **Precipitation coupling with aerosols, clouds** and environmental conditions
- **Radiative transfer in the atmosphere** and its interaction with clouds and circulation
- **Representation of convection** in models with a horizontal grid size of 1-10 km and its role in high impact weather
- **Role of land processes** in sub-seasonal to seasonal (S2S) prediction (e.g., supporting the S2S WCRP and WWRP joint project)
- **Stable boundary layers** and the impact of surface conditions on momentum transport and the energy and water cycle

From GEWEX Newsletter: Aug 2017

Abstract submission is open!

Understanding and Modelling Atmospheric Processes

The 2nd Pan-GASS meeting sponsored by the ARC Centre of Excellence for Climate System Science

26TH FEBRUARY 2018 - 2ND MARCH 2018, LORNE, VICTORIA, AUSTRALIA

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NEWS

***** Abstract submission is now open! *****

Click here to submit an abstract.
Abstract submission is free and will close on **the 31st of October 2017**

***** Registration for UMAP2018 is also open *****

Click here to register for the conference.
Registration costs 165AUD and will close on **the 15th of November 2017**

The 2nd Pan-GASS meeting: 'Understanding and Modelling Atmospheric Processes' (UMAP) will take place between the **26 Feb-2 Mar 2018** in Lorne, near Melbourne, Victoria, Australia.

CONTACT

For all enquiries about the UMAP 2018 meeting please email umap2018@monash.edu

MAILING LIST

To keep up to date with UMAP 2018 announcements, sign up to our mailing list.

VENUE

The UMAP 2018 meeting will take place at the Cumberland Lorne Resort, situated on the beautiful

http://singh.sci.monash.edu/Pan-GASS/abstract.shtml

Call for abstracts

- **Surface drag and momentum transport:** orographic drag, convective momentum transport, drag coefficients, boundary-layer mixing
- **Processes relevant for polar prediction:** stable boundary layers, mixed-phase clouds, coupling to the surface
- **Shallow and deep convection:** stochasticity, scale-awareness, organization, grey zone issues
- **Clouds and circulation feedbacks:** boundary-layer clouds, CFMIP, cirrus
- **Microphysics and aerosol-cloud interactions:** microphysical observations, parameterization, process studies on aerosol-cloud interactions
- **Radiation:** circulation coupling; interaction between radiation and clouds
- **Land-atmosphere interactions:** Role of land processes (snow, soil moisture, soil temperature, and vegetation) in sub-seasonal to seasonal (S2S) prediction
- **Physics-dynamics coupling:** numerical methods, scale-separation and grey-zone, thermodynamic consistency
- **Next generation model development:** the challenge of exascale, dynamical core developments, regional refinement, super-parameterization
- **High Impact and Extreme Weather:** role of convective scale models; ensembles; relevant challenges for model development

On the above topics, we invite you to submit abstracts broadly addressing one of the key ingredients for modelling atmospheric processes:

I. Process understanding

II. Recent model developments and their impact on weather and climate prediction

III. Observational and high resolution constraints for improving models

IV. Emerging and innovative approaches

Conclusion:

- GASS is alive and getting back up to speed
- Building panel and projects
- Good time for input!
- Conference!