



Environment and
Climate Change Canada

Environnement et
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5th WGNE workshop on systematic errors in weather and climate models

The WCRP-JSC/CAS Working Group on Numerical Experimentation (WGNE) is organizing a workshop on systematic errors in weather and climate models, to be hosted by Environment and Climate Change Canada (ECCC) in Montreal, Quebec, Canada, during 19-23 June 2017.

The principal goal of the workshop is to increase understanding of the nature and cause of errors in models used for weather and climate prediction, including intra-seasonal to inter-annual scales. Of special interest will be studies that consider errors found in multiple models and errors which are present across timescales. Diagnostics and metrics to identify and characterize systematic errors are welcomed.

Considering recent reports from WGNE members, affiliated centres and groups, WGNE has identified some processes that models currently fail to represent accurately. The workshop is therefore organized around the following themes:

- **Atmosphere-land-ocean-cryosphere interactions:** errors in the representation of surface fluxes and drag processes; stable boundary layer issues; impact of coupled modeling.
- **Clouds and precipitation:** cloud-radiative feedback problem; tropical convection issues; representation of low clouds, especially at high latitudes; excess low accumulations of precipitation; underestimation of precipitation extremes; summer continental precipitation; precipitation over orography.
- **Resolution issues:** dependence of systematic errors on model resolution; grey zones of physical parametrizations.
- **Teleconnections*:** errors in the simulation of interactions between high-latitudes, mid-latitudes and tropics.
- **Metrics and diagnostics:** emphasis on novel techniques (e.g. process-based diagnostics; use of data assimilation or coupled modeling) to diagnose and measure systematic errors.
- **Model errors in ensembles:** characterization of ensemble spread and identification of systematic errors in multi-model ensembles and ensemble prediction systems; evaluation of stochastic representations.

*Note that the *Teleconnections* theme includes a sub-session on the Year of Tropics-Midlatitude Interactions and Teleconnections (YTMIT) organized in collaboration with the Subseasonal-to-Seasonal (S2S) Prediction Project.

Work looking at model errors in the areas above is welcomed, although this list is not exhaustive.

The format of the workshop will be similar to the [previous one](#):

- maximum number of participants is 200,
 - single session of oral presentations (no parallel sessions) from selected abstracts plus keynote talks by solicited speakers,
 - majority of presentations in the form of posters,
- following a review by the workshop science committee.

Submissions of abstracts for this workshop will be done online at http://collaboration.cmc.ec.gc.ca/science/rpn/wgne_wse/en/ with opening date of 15 Dec 2016 and closing date of 28 Jan 2017.

Questions can be addressed to [ayrton.zadra\[at\]canada.ca](mailto:ayrton.zadra[at]canada.ca)

Kind regards,
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[WGNE](#) co-chairs