

## climate change initiative

# → CMUG NEWSLETTER

### Recent CMUG Research Results

Latest CMUG research results presented at the Colocation Meeting can be found on the new CMUG website [here](#) where you can also scroll down to the 'Poster session from CCI ECV projects' under Day 2. Here you can view the CMUG [poster](#) which gives an overview of the latest research results, as well as individual CCI ECV project posters for additional research results and more detail.

### CMUG Outreach Activities

A blog post 'Satellite data for ocean reanalysis' (available [here](#)) by CMUG member David Ford went live on the European Geosciences Union (EGU) Ocean Science blog on 22 September and was tweeted from EGU Ocean Sciences Twitter and retweeted by EGU's main Twitter, including Met Office Science and ESA in the tags.

CMUG will be promoted on the Met Office Science Twitter feed in late October. The tweets will introduce the CMUG project, introduce ESA's CCI and advertise the Open Data Portal and the use of the Obs4MIPs portal and how this work feeds into evaluation of CMIP5 and 6.

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### Upcoming: CSWG Autumn 2020

CMUG is organizing its eighth Climate Science Working Group (CSWG) meeting on 23<sup>rd</sup> October, 9:00 – 11:00 (UK time) / 10:00 – 12:00 (Central Europe). This CSWG meeting will focus on the work being done in CMUG and the CCI ECV projects with a focus on three ECVs: Sea Surface Temperature (SST), Sea Surface Salinity (SSS) and Sea Ice.

The invitation is extended to all CCI project members and CMUG partners. Instructions on how to join the WebEx meeting have been circulated by email, please contact [Amy Doherty](#) if you have not received these and would like to join the meeting. The agenda can be found [here](#).

There will be updates on each ECV and the following CMUG Work Packages:

- CMUG WP 3.8 "Impact of assimilation of sea ice concentrations on seasonal forecast skill over the Arctic and beyond" by Pablo Ortega, BSC
- CMUG WP 3.9 "Data assimilation and biophysical feedbacks in global ocean reanalysis" by David Ford, Met Office
- CMUG WP 4 "A spatial correlation model for Arctic SIC and the implications for the most favorable abstraction level in model evaluations" by Andreas Wernecke, MPI-M

The minutes from the previous, seventh, CSWG meeting can be found [here](#).

## CMUG ECV Data Use

Follow this [link](#) to a document which shows which ECVs are used in which WPs with detailed WP descriptions.

## CMUG Key Contacts per CMUG Partner

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### Météo France

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### SMHI

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## CMUG Website

Check out CMUG's new website with its brand new design [here](#). The new site features eight newly designed and organised tabs 'About', 'News', 'Data', 'Key Documents', 'Team', 'Publications', 'Related Links' and 'Contacts'. The website is still under development as the transfer continues so keep an eye out for updates over the coming months.

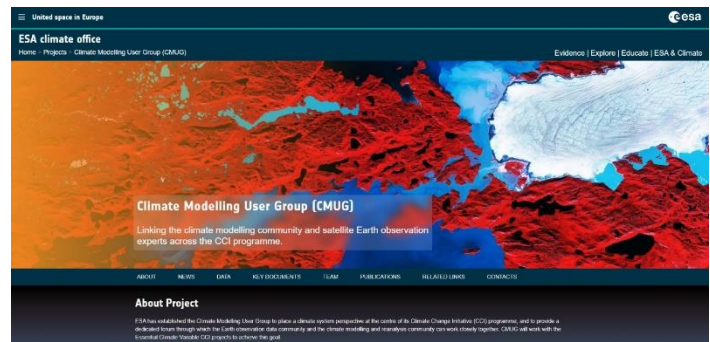
Within the 'Team' tab you can find member biographies. CMUG partners who have not yet submitted a biography should send theirs to [Hannah Griffith](#).

## CMUG Structure Flowchart

For a refresher of CMUG's project structure, illustrating the relationship between CMUG, ESA, ECVs, CMUG climate modelers, project partners and the Met Office Hadley Centre, check out the newly produced CMUG Structure Flowchart on the CMUG website's 'About' page [here](#).

## External SharePoint Site & Teams

CMUG is working to set up an external SharePoint site as a central hub for document storing, sharing and collaborative working. Microsoft Teams will be set up in parallel with dedicated channels for members to converse and have open discussions. Teams could then be used as an alternative video-conferencing tool. Further information will be circulated in the coming weeks and the new site is expected to be live later this year



## Publications

CMUG partners (in bold) have been authors in 10 publications in Phase 3 of CMUG October 2018 – October 2020:

1. **Willén U.**, et al., 2018: ENSO variability in multiple satellite observations and climate models. In prep.
2. **Eyring, V.**, Cox, P. M., Flato, G. M., Gleckler, P. J., Abramowitz, G., Caldwell, P., Collins, W. D., Gier, B. K., Hall, A. D., Hoffman, F. M., Hurtt, G. C., Jahn, A., Jones, C. D., Klein, S. A., Krasting, J. P., Kwiatkowski, L., Lorenz, R., Maloney, E., Meehl, G. A., Pendergrass, A. G., Pincus, R., Ruane, A. C., Russell, J. L., Sanderson, B. M., Santer, B. D., Sherwood, S. C., Simpson, I. R., Stouffer, R. J. & Williamson, M. S. (2019) Taking climate model evaluation to the next level. *Nature Climate Change*. doi:10.1038/s41558-018-0355-y. <https://www.nature.com/articles/s41558-018-0355-y>
3. **Ford, D. A.** (2020), Assessing the role and consistency of satellite observation products in global physical-biogeochemical ocean reanalysis. <https://os.copernicus.org/articles/16/875/2020>
4. **Popp, T.**, M I Hegglin, R Hollmann, F Arduin, A Bartsch, A Bastos, V Bennett7, J Boutin, C Brockmann, M Buchwitz, E Chuvieco, P Ciais, W Dorigo, D Ghent, R Jones, T Lavergne, C J Merchant, B Meyssignac, F Paul, S Quegan, S Sathyendranath, T Scanlon, M Schröder, S G H Simis, **U Willén.** (2020) Consistency of satellite climate data records for Earth system monitoring. *Bull. Amer. Meteor. Soc.*, doi: <https://doi.org/10.1175/BAMS-D-19-0127.1>
5. Waliser, D., Gleckler, P. J., Ferraro, R., Taylor, K. E., Ames, S., Biard, J., Bosilovich, M. G., Brown, O., Chepfer, H., Cinquini, L., Durack, P. J., **Eyring, V.**, Bathieu, P.-P., Lee, T., **Pinnock, S.**, Potter, G. L., Rixen, M., Saunders., R., Schulz, J., Thépaut, J.-N., Tuma, M. (2020) Observations for Model Intercomparison Project (Obs4MIPs): status for CMIP6. *Geosci. Model Dev.*, **13**, 2945-2958.
6. **Albergel, C.**, **Zheng, Y.**, Bonan, B., Dutra, E., Rodríguez-Fernández, N., Munier, S., Draper, C., de Rosnay, P., Muñoz-Sabater, J., Balsamo, G., Fairbairn, D., Meurey, C., and Calvet, J.-C.: Data assimilation for continuous global assessment of severe conditions over terrestrial surfaces, *Hydrol. Earth Syst. Sci.*, **24**, 4291–4316, <https://hess.copernicus.org/articles/24/4291/2020/>, 2020.
7. **Bilbao, R.**, Wild, S., Otega, B., Acosta-Navarro, J., Arsouze, T., Bretonniere, P-A., **Caron, L-P.**, Castrillo, M., Cruz-Gracia, R., Cvijanovic, I., Doblas-Reyes, F.J., Donat, M., Dura, E., Echevarría, P., Ho, A-C., Loosveldt-Tomas, S., Moreno-Chamarro, E., Pérez-Zanon, N., Ramos, A., Ruprich-Robert, Y., Sicardi, V., Tourigny, E., Vegas-Regidor, J.: Assessment of a full-Field initialised decadal climate prediction system with the CMIP6 version of EC-Earth, <https://esd.copernicus.org/preprints/esd-2020-66/2020>
8. **Cheruy, F.**, Ducharne, A., Hourdin, F., Musat, I., Vignon, E., et al.: Improved near surface continental climate in IPSL-CM6A-LR by combined evolutions of atmospheric and land surface physics, *Journal of Advances in Modeling Earth Systems*, <https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2019MS002005>, 2020.
9. **Zheng, Y.**, **Albergel, C.**, Munier, S., Bonan, B., and **Calvet, J.-C.**: An offline framework for high-dimensional ensemble Kalman filters to reduce the time to solution, *Geosci. Model Dev.*, **13**, 3607–3625, <https://gmd.copernicus.org/articles/13/3607/2020/>, 2020.
10. **Lauer, A.**, **Eyring, V.**, Bellprat, O., Bock, L., Gier, B. K., Hunter, A., Lorenz, R., Pérez-Zanón, N., **Righi, M.**, Schlund, M., Senftleben, D., Weigel, K., and Zechlau, S.: Earth System Model Evaluation Tool (ESMValTool) v2.0 - diagnostics for emergent constraints and future projections from Earth system models in CMIP, *Geosci. Model. Dev.*, **13**, 4205-4228, <https://gmd.copernicus.org/articles/13/4205/2020/>, 2020.