

Publications

This is a list of articles published in peer-reviewed scientific journals related to seasonal forecasting with permanent Météo-France researchers (in bold fonts) as lead author or co-author.

- Déqué, M.**, 1988: The probabilistic formulation: a way to deal with ensemble forecasts. *Annales Geophysicae*, 6, 217-224.
- Déqué, M.**, 1990: Impact of prescribed sea surface temperatures on extended range forecasting. *J. Marine Systems*, 1, 61-70.
- Déqué, M.**, 1991: Removing the model systematic error in extended range forecasting. *Annales Geophysicae*, 9, 242-251.
- Déqué, M.** and **Royer, J.F.**, 1992: The skill of extended-range extratropical winter dynamical forecasts. *J. Climate*, 5, 1346-1356.
- Déqué, M.**, **Royer, J.F.** and Stroe, R., 1994: Formulation of gaussian probability forecasts based on model extended-range integrations. *Tellus*, 46A, 52-65.
- Déqué, M.**, 1997: Ensemble size for numerical seasonal forecasts. *Tellus*, 49A, 74-86.
- Doblas-Reyes, F.J., **Déqué, M.** and **Piedelievre, J.P.**, 2000: Model and multimodel spread in the PROVOST seasonal forecasts : application to probabilistic forecasts. *Quart. J. Roy. Meteor. Soc.*, 126, 2069-2088.
- Douville, H.** and **Chauvin, F.**, 2000: Relevance of soil moisture for seasonal climate predictions: a preliminary study. *Climate Dynamics*, 16, 719-736
- Déqué, M.**, 2001: Seasonal predictability of tropical rainfall : probabilistic formulation and validation. *Tellus*, 53A, 500-512.
- Sperber, K.R., Brankovic, C., **Déqué, M.**, Frederiksen, C.S., Graham, R., Kitoh, A., Kobayashi, C., Palmer, T., Puri, K., Tennant, W. and Volodin, W., 2001: Dynamical seasonal predictability of the Asian summer monsoon. *Mon. Wea. Rev.*, 129, 2226-2248.
- Garric, G., **Douville, H.** and **Déqué, M.**, 2002: Prospects for improved seasonal predictions of monsoon precipitation over Sahel. *Int. J. Climatol.*, 22(3), 331-345.
- Clark, R.T. and **Déqué, M.**, 2003: Conditional probability seasonal predictions of precipitation. *Quart. J. Roy. Meteor. Soc.*, 129, 1-15.
- Palmer, T.N., Alessandri, A., Andersen, U., Cantelaube, P., Davey, M., Délécluse, P., **Déqué, M.**, Díez, E., Doblas-Reyes, F.J., Feddersen, H., Graham, R., Gualdi, S., **Guérémy, J.F.**, Hagedorn, R., Hoshen, M., Keenlyside, N., Latif, M., Lazar, A., Maisonnave, E., Marletto, V., Morse, A.P., Orfila, B., Rogel, P., Terres, J.M. and Thomson, M.C., 2004: Development of a European Multi-Model Ensemble System for Seasonal to Inter-Annual Prediction (DEMETER). *Bull. Am. Meteorol. Soc.*, 85, 853-872.
- Douville, H.** 2004: Relevance of soil moisture for seasonal climate predictions: is it an initial value problem ? *Climate Dynamics*, 22, 429-446

- Guérémy, J.F., Déqué, M., Braun, A. and Pielieuvre, J.P.**, 2005: Actual and potential skill of seasonal predictions using the CNRM contribution to DEMETER: coupled versus uncoupled model. *Tellus*, 57A, 308-319.
- Guldberg, A., Kaas, E., **Déqué, M.**, Yang, S. and Vester Thorsen, S., 2005: Reduction of systematic errors by empirical model correction: impact on seasonal prediction skill. *Tellus*, 57A, 575-588.
- Vitart, F., Huddleston, M.R., **Déqué, M.**, Peake, D., Palmer, T.N., Stockdale, T.N., Davey, M.K., Ineson, S. and Weisheimer, A., 2007: Dynamically-based seasonal forecasts of Atlantic tropical storm activity issued in June by EUROSIP. *Geophys. Res. Lett.*, 34, L16815, doi:10.1029/2007GL030740
- Douville, H.**, 2007, Soil moisture memory and West African monsoon predictability: artefact or reality ? *Climate Dynamics*, 28, 723-742
- Weisheimer, A., Doblas-Reyes, F.J. Palmer, T.N. Alessandri, A. Arribas, A. **Déqué, M.**, Keenlyside, N. MacVean, M. Navarra, A. and Rogel, P., 2009 : ENSEMBLES: A new multi-model ensemble for seasonal-to-annual predictions--Skill and progress beyond DEMETER in forecasting tropical Pacific SSTs. *Geophysical Research Letters*, 36, doi : 10.1029/2009GL040896
- Douville, H.**, 2009: Stratospheric polar vortex influence on Northern Hemisphere winter climate variability. *Geophys. Res. Lett.*, 36, doi.: 10.1029/2009GL039334
- Alessandri, A., Borelli, A., Navarra, A., Arribas, A., **Déqué, M.**, Rogel, P. and Weisheimer, A, 2011: Evaluation of Probabilistic Quality and Value of the ENSEMBLES Multimodel Seasonal Forecasts: Comparison with DEMETER. *Monthly Weather Review*, 139, 581-607, doi : 10.1175/2010MWR3417.1
- Batté, L.**, and **Déqué, M.**, 2011: Seasonal predictions of precipitation over Africa using coupled ocean-atmosphere general circulation models : skill of the ENSEMBLES project multimodel ensemble forecasts. *Tellus SERIES A-Dynamic Meteorology and Oceanography*, Volume : 63, Issue : 2, Pages : 283-299, Published : MAR 2011. Doi : 10.1111/j.1600-0870.2010.00493.x.
- Batté, L.** and **Déqué, M.** , 2012: A stochastic method for improving seasonal predictions. *Geophysical Research Letters*, Vol. 39, L09707, doi:10.1029/2012GL051406
- Chevallier, M.** and **Salas y Mélia, D.**, 2012. The role of sea ice thickness distribution in the Arctic sea ice potential predictability: a diagnostic approach with a coupled GCM. *Journal of Climate*, 25, 3025-3038, doi:10.1175/JCLI-D-11-00209.1
- Guérémy, J.F.**, Laanaia, N. and **Céron, J.P.**, 2012.: Seasonal forecast of French Mediterranean heavy precipitating events linked to weather regimes, *Nat. Hazards Earth Syst. Sci.*, 12, 2389-2398, doi:10.5194/nhess-12-2389-2012.
- Chevallier, M.**, **Salas y Mélia, D.**, **Voltaire, A.**, **Déqué, M.** and Garric, G., 2013: Seasonal Forecasts of the Pan-Arctic Sea Ice Extent Using a GCM-Based Seasonal Prediction System. *J. Climate*, 26, 6092–6104.
- Guemas V., Blanchard-Wrigglesworth, E., **Chevallier, M.**, Day, J.J, **Déqué, M.**, Doblas-Reyes, F.J., Germe, A., Hawkins, E., Keeley, S., Koenigk, T., **Salas y Mélia, D.**, and Tietsche, S. 2014 : A

review on Arctic sea ice predictability and prediction on seasonal-to-decadal timescales, QJRMS, doi:10.1002/qj.2401

- Singla, S., **Céron, J.P., Martin, E., Regimbeau, F., Déqué, M.**, Habets, F. and Vidal, J.P., 2012 : Predictability of Soil Moisture and River Flows over France for the Spring Season Hydrol. Earth Syst. Sci., 16, 201-216, doi:10.5194/hess-16-201-2012
- Batté, L.** and Doblas-Reyes, F.J., 2015 : Stochastic atmospheric perturbations in the EC-Earth3 global coupled model: impact of SPPT on seasonal forecast quality. Climate Dynamics, doi 10.1007/s00382-015-2548-7
- Blanchard-Wrigglesworth, E., A., Barthélemy, **M. Chevallier**, R. Cullather, N. Fučkar, F. Massonnet, P. Posey, W. Wang, J. Zhang, **C. Ardilouze**, C. M. Bitz, G. Vernieres, A. Wallcraft, M. Wang, 2016 : Multi-model seasonal forecast of Arctic sea-ice : forecast uncertainty at pan-Arctic and regional scales. Climate Dynamics. doi:10.1007/s00382-016-3388-9
- Vitart, F., **C. Ardilouze**, A. Bonet, A. Brookshaw, M. Chen, C. Codorean, **M. Déqué**, L. Ferranti, E. Fucile, M. Fuentes, H. Hendon, J. Hodgson, H. Kang, A. Kumar, H. Lin, G. Liu, X. Liu, P. Malguzzi, I. Mallas, M. Manoussakis, D. Mastrangelo, C. MacLachlan, P. McLean, A. Minami, R. Mladek, T. Nakazawa, S. Najm, Y. Nie, M. Rixen, A. Robertson, P. Ruti, C. Sun, Y. Takaya, M. Tolstykh, F. Venuti, D. Waliser, S. Woolnough, T. Wu, D. Won, H. Xiao, R. Zaripov, and L. Zhang, 2017 : The Sub-seasonal to Seasonal Prediction (S2S) Project Database. Bull. Amer. Meteor. Soc. doi:10.1175/BAMS-D-16-0017.1
- Ardilouze, C., L. Batté**, F. Bunzel, D. Decremet, **M. Déqué**, F.J. Doblas-Reyes, **H. Douville**, D. Fereday, V. Guemas, C. MacLachlan, W. Müller, C. Prodhomme, 2017 : Multi-model assessment of the impact of soil moisture initialization on mid-latitude summer predictability. Climate Dynamics. doi:10.1007/s00382-017-3555-7
- Ardilouze, C., L. Batté, M. Déqué**, 2017 : Subseasonal-to-seasonal (S2S) forecasts with CNRM-CM : a case study on the July 2015 West-European heat wave, Adv. Sci. Res., 14, 115-121, doi:10.5194/asr-14-115-2017, 2017
- Batté, L., C. Ardilouze, M. Déqué**, 2018 : Forecasting West African heat waves at sub-seasonal and seasonal time scales. Mon. Weather Rev. doi:10.1175/MWR-D-17-0211.1
- Ardilouze, C., L. Batté, M. Déqué**, E. van Meijgaard, B. van den Hurk, 2019 : Impact of soil moisture on European summer climate in numerical experiments. Clim Dyn. doi:10.1007/s00382-018-4358-1