

Dr. SOMOT Samuel – short CV

Web page: www.cnrm.meteo.fr/spip.php?article437

Age	38
Education	Visiting scientist at ESSC (Reading, 5 months, 2003), OURANOS (Montréal, 2 months, 2007), NASA/GISS (New-York, 4 months, 2010) and LOCEAN (Paris, 2 year at part time, 2012-2014) PhD in Climate physics at Université Paul Sabatier, Toulouse (2005) Engineer at Ecole National de la Météorologie, Toulouse (2003) Master in Oceanography, Meteorology and Environnement at Paris 6 University, Paris (2000) Bachelor in Physics at Ecole Normale Supérieure de Lyon, Lyon (1997-2001)
Status	Full-time scientist (Ingénieur des Ponts des Eaux et des Forêts, IPEF) at Météo-France/CNRM-GAME, at CNRM
Professional Activities	<ul style="list-style-type: none">- <i>Researcher</i> at CNRM-GAME, in charge of the regional climate activities- <i>Workpackage and task leader</i> for the HyMeX programme (www.hymex.org)- <i>Co-leader</i> of the Med-CORDEX initiative (www.medcordex.eu)- <i>Workpackage leader</i> for the CLIM-RUN EU project (FP7, 2011-2014)- <i>Workpackage leader</i> for the REMEMBER ANR project (2013-2016)- <i>PhD supervisor</i> (P. Nabat and R. Waldman, CNRM)

Project/Programme participation:

- participation to 7 international programmes: MedCLIVAR, CORDEX, HyMeX, Charmex, Mermex, ENVI-MED CLIHMag, ENVI-MED Med-MaHb
- participation to 8 European projects in FP4 (MERCURE), FP5 (PRUDENCE), FP6 (ENSEMBLES, CECILIA, CIRCE), FP7 (CLIM-RUN, IMPACT2C) and ERA-Net (CIRCLE-Med/CANTICO)
- participation to 13 large national projects (ANR-ASICS-MED, ANR-REMEMBER, ANR-VURCA, ANR-MUSCADE, ANR-SCAMPEI, ANR-MEDUP, ANR-CICLE, LEFE-MISSTERRE, LEFE-MISSTERRE-2, GMMC PPR-SiMed, GMMC PPR-SiMed-2, GICC-MedWater, ACI-CYPRIM)
- Contributing author for the IPCC 4th Assessment report, Chapter 11 (regional climate)

PhD supervisor/co-supervisor: M. Herrmann (2007), J. Colin (2011), J. Beuvier (2011), P. Nabat (2014), R. Waldman (on-going)

Publications/Communications: (since 2006, more than 70 publications in peer-reviewed journal or books and more than 100 communications in national and international conferences).

- Nabat P., **Somot S.**, Mallet M., Sanchez-Lorenzo A., Wild M. (2014b) Contribution of anthropogenic sulfate aerosols to the changing Euro-Mediterranean climate since 1980. *Geophys. Res. Lett.*, 41, doi:10.1002/2015GL060798
- Nabat P., **Somot S.**, Mallet M., Sevault F., Chiacchio M., Wild M. (2014a) Direct and semi-direct aerosol radiative effect on the Mediterranean climate variability using a coupled Regional Climate System Model. *Clim. Dyn.*, doi : 10.1007/s00382-014-2205-6
- L'Heveder B., Li L., Sevault F., **Somot S.** (2013) Interannual variability of deep convection in the Northwestern Mediterranean simulated with a coupled AORCM. *Climate Dyn.*, 41:937-960. doi: 10.1007/s00382-012-1527-5
- Dubois C., **S. Somot**, S. Calmanti, A. Carillo, M. Déqué, A. Dell'Aquila, A. Elizalde-Arellano, S. Gualdi, D. Jacob, B. Lheveder, L.Li, P. Oddo, G. Sannino, E. Scoccimarro, F. Sevault (2012) Future projections of the surface heat and water budgets of the Mediterranean sea in an ensemble of coupled

atmosphere-ocean regional climate models, *Clim. Dyn.* 39 (7-8):1859-1884. DOI 10.1007/s00382-011-1261-4.

- Déqué M., **Somot S.**, Sanchez-Gomez E., Goodess C.M., Jacob D., Lenderink G., O.B. Christensen O.B. (2012) "The spread amongst ENSEMBLES regional scenarios: Regional Climate Models, driving General Circulation Models and interannual variability", *Clim. Dyn.*, 38:5-6, pp. 951-964, DOI: 10.1007/s00382-011-1053-x
- Herrmann M., **Somot S.**, Calmanti S., Dubois C., Sevault F. (2011) "Representation of daily wind speed spatial and temporal variability and intense wind events over the Mediterranean Sea using dynamical downscaling : impact of the regional climate model configuration", *Nat. Hazards Earth Syst. Sci.*, 11, 1983-2001, doi:10.5194/nhess-11-1983-2011
- Josey, S. A., **S. Somot**, and M. Tsimplis (2011) Impacts of atmospheric modes of variability on Mediterranean Sea surface heat exchange, *J. Geophys. Res.*, 116, C02032, doi:10.1029/2010JC006685.
- Sanchez-Gomez E., **Somot S.**, Josey S.A., Dubois C., Elguindi N., Déqué M. (2011) "Evaluation of the Mediterranean Sea Water and Heat budgets as simulated by an ensemble of high resolution Regional Climate Models" *Clim. Dyn.*, 37:2067-2086, doi:10.1007/s00382-011-1012-6
- Colin J., Déqué M., Radu R., **Somot S.** (2010) Sensitivity study of heavy precipitations in Limited Area Model climate simulation: influence of the size of the domain and the use of the spectral nudging technique. *Tellus-A*, 62(5), 591-604. DOI: 10.1111/j.1600-0870.2010.00467.x
- Lasram F.B.R., Guilhaumon F., Albouy C., **Somot S.**, Thuiller W., Mouillot, D. (2010) The Mediterranean Sea as a "cul-de-sac" for endemic fishes facing climate change, *Global Change Biology*, doi: 10.1111/j.1365-2486.2010.02224.x
- Herrmann M., Sevault F., Beuvier J., **Somot S.** (2010) What induced the exceptional 2005 convection event in the Northwestern Mediterranean basin ? Answers from a modeling study. *JGR-O*, doi:10.1029/2010JC006162
- Beuvier J., F. Sevault, M. Herrmann, H. Kontoyiannis, W. Ludwig, M. Rixen, E. Stanev, K. Béranger, **S. Somot** (2010) Modelling the Mediterranean Sea interannual variability over the last 40 years: focus on the EMT, *JGR-Ocean*, 115, C08017, doi:10.1029/2009JC005950.
- Sanchez-Gomez E., **Somot S.**, Mariotti A. (2009) "Future changes in the Mediterranean water budget projected by an ensemble of Regional Climate Models" *Geophys. Res. Lett.*, 36, L21401, doi:10.1029/2009GL040120
- Sanchez-Gomez E., **S. Somot**, M. Déqué (2008) Ability of an ensemble of regional climate models to reproduce the weather regimes during the period 1961-2000. *Clim. Dyn.*, 33(5):723-736, doi:10.1007/s00382-008-0502-7
- Herrmann, M. J., and **S. Somot** (2008) Relevance of ERA40 dynamical downscaling for modeling deep convection in the Mediterranean Sea, *Geophys. Res. Lett.*, 35, L04607, doi:10.1029/2007GL032442
- Herrmann M., **Somot S.**, Sevault F., Estournel C., Déqué M. (2008) Modeling the deep convection in the Northwestern Mediterranean Sea using an eddy-permitting and an eddy-resolving model: case study of the 1986-87 winter. *J. Geophys. Res.* 113, C04011, doi:10.1029/2006JC003991
- **Somot S.**, Sevault F., Déqué M., Crépon M. (2008) 21st century climate change scenario for the Mediterranean using a coupled Atmosphere-Ocean Regional Climate Model. *Global and Planetary Change*, 63(2-3), pp. 112-126, doi:10.1016/j.gloplacha.2007.10.003
- **Somot S.**, Sevault F., Déqué M. (2006) Transient climate change scenario simulation of the Mediterranean Sea for the 21st century using a high-resolution ocean circulation model. *Climate Dynamics*, Volume 27, Numbers 7-8, December, 2006, pp. 851-879, DOI :10.1007/s00382-006-0167-z