

## LIST OF PUBLICATIONS – Erik Kjellström

2018-08-09

### *Publications in peer-reviewed journals:*

- 1) Blenkinsop, S., Fowler, H.J., Lewis, E., Guerreiro, S., Li, X.-F., Chan, S. C., Barbero, R., Lenderink, G., Westra, S., Kendon, E., Dunn, R., Ekström, M., Tye, M.R., Holland, G., Prein, A. F., Evans, J. P., Alexander, L., Allan, R., Jones, R., **Kjellström, E.**, Berg, P., Mishra, V., Lettenmaier, D., Klein-Tank, A. and Sheffield, J., 2018. INTENSE: INTElligent use of climate models for adaptatioN to non-Stationary hydrological Extremes. *Adv. Sci. Res.*, 15, 117-126, <https://doi.org/10.5194/asr-15-117-2018>.
- 2) Sørland, S., Lüthi, D., Schär, C. and **Kjellström, E.**, 2018. Bias patterns and climate change signals in GCM-RCM model chains. *Environ. Res. Lett.*, 13, 074017, <https://doi.org/10.1088/1748-9326/aacc77>.
- 3) Nikulin, G., Lennard, C., Dosio, A., **Kjellström, E.**, Chen, Y., Hänsler, A., Kupiainen, M., Laprise, R., Mariotti, L., Fox Maule, C., van Meijgaard, E., Panitz, H.-J., Scinocca, J., and Somot, S., 2017. The effects of 1.5 and 2 degrees of global warming on Africa in the CORDEX ensemble". *Environ. Res. Lett.* 13, 065003, <https://doi.org/10.1088/1748-9326/aab1b1>.
- 4) **Kjellström, E.**, Nikulin, G., Strandberg, G., Christensen, O. B., Jacob, D., Keuler, K., Lenderink, G., van Meijgaard, E., Schär, C., Somot, S., Sørland, S. L., Teichmann, C., and Vautard, R., 2018. European climate change at global mean temperature increases of 1.5 and 2 °C above pre-industrial conditions as simulated by the EURO-CORDEX regional climate models, *Earth Syst. Dynam.*, 9, 459-478, <https://doi.org/10.5194/esd-9-459-2018>.
- 5) Hartung, K., Svensson, G. and **Kjellström, E.**, 2017. Resolution, physics and atmosphere–ocean interaction – How do they influence climate model representation of Euro-Atlantic atmospheric blocking? *Tellus A*, 69(1), 1406252, DOI:10.1080/16000870.2017.1406252.
- 6) White, C.J., Carlsen, H., Robertson, A.W., Klein, R.J.T., Lazo, J.K., Kumar, A., Vitart, F., Coughlan de Perez, E., Ray, A.J., Murray, V., Bharwani, S., MacLeod, D., James, R., Fleming, L., Morse, A.P., Eggen, B., Graham, R., **Kjellström, E.**, Becker, E., Pegion, K.V., Holbrook, N.J., McEvoy, D., Depledge, M., Perkins-Kirkpatrick, S., Brown, T.B., Street, R., Jones, L., Remenyi, T.A., Hodgson-Johnston, I., Buontempo, C., Lamb, R., Meinke, H., Arheimer, B. and Zebiak, S.E., 2017. Potential applications of subseasonal-to-seasonal (S2S) predictions, *Meteorological Applications*, doi:10.1002/met.1654.
- 7) Iqbal, W., Syed, F. S., Sajjad H., Nikulin, G., **Kjellström, E.**, and Hannachi, A., 2017. Mean climate and representation of jet streams in the CORDEXSouth Asia simulations by the regional climate model RCA4. *Theor Appl Climatol.* 129, 1-19. DOI 10.1007/s00704-016-1755-4.
- 8) **Kjellström, E.**, Barring, L., Nikulin, G., Nilsson, C., Persson, G., and

- Strandberg, G., 2016. Production and use of regional climate model projections – a Swedish perspective on building climate services. *Climate Services*, 2-3, 15-29. Doi: 10.1016/j.cliser.2016.06.004.
- 9) Lind, P., Lindstedt, D., **Kjellström, E.**, and Jones, C., 2016: Spatial and Temporal Characteristics of Summer Precipitation over Central Europe in a Suite of High- Resolution Climate Models. *J Clim*, 3501-3518. doi:10.1175/JCLI-D-15-0463.1.
  - 10) Van den Hurk, B., Bouwer, L., Pouget, L. Ward, P., Ramos, M.-H., Buontempo, C., Klein, B., Wijngaard, J., Hananel, C., **Kjellström, E.**, Manez, M., Döscher, R., Ercin, E., Hunink, J., Pappenberger, F. and Weerts, A., 2016. Improving Predictions and Management of Hydrological Extremes through Climate Services. *Climate Services*, 1, 6-11.
  - 11) Prein, A. F., Gobiet, A., Truehetz, H., Keuler, K., Goergen, K., Teichmann, C., Fox Maule, C., van Meijgaard, E., Déqué, M., Nikulin, G., Vautard, R., Colette, A., **Kjellström, E.** and Jacob, D., 2016. Precipitation in the EURO-CORDEX 0.11° and 0.44° simulations: high resolution, high benefits? *Clim. Dyn.*, 46, 383-412, doi: 10.1007/s00382-015-2589-y.
  - 12) Glaas, E., Neset, T.-S., **Kjellström, E.** and Almås., A.-J. 2015. Increasing house owners adaptive capacity: Compliance between climate change risks and adaptation guidelines in Scandinavia. *Urban Climate*, <http://dx.doi.org/10.1016/j.uclim.2015.07.003>.
  - 13) Steffens, K., Jarvis, N., Lindström, B., Kreuger, J., **Kjellström, E.**, Lewan, E. and Moeys, J., 2015. Direct and indirect effects of climate change on herbicide leaching – a regional scale assessment. *Science of the Total Environment*, 514, 239-249.
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  - 15) Strandberg, G., **Kjellström, E.**, Poska, A., Wagner, S., Gaillard, M.-J., Trondman, A.-K., Mauri, A., Birks, H. J. B., Bjune, A. E., Davis, B. A. S., Fyfe, R., Giesecke, T., Kalnina, L., Kangur, M., Kaplan, J. O., van der Knaap, W. O., Kokfelt, U., Kuneš, P., Latałowa, M., Marquer, L., Mazier, F., Nielsen, A. B., Smith, B., Seppä, H., and Sugita, S., 2014. Regional climate model simulations for Europe at 6 k and 0.2 k yr BP: sensitivity to changes in anthropogenic deforestation, *Clim. Past*, 10, 661-680, doi:10.5194/cp-10-661-2014.
  - 16) Vautard, R., Gobiet, A., Sobolowski, S., **Kjellström, E.**, Stegehuis, A., Watkiss, P., Mendlik, T., Landgren, O., Nikulin, G., Teichmann, C., Jacob, D., 2014. The European climate under a 2°C global warming. *Environ. Res. Lett.* 9, 034006, doi:10.1088/1748-9326/9/3/034006.
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and its impacts. *Climatic Change*, 122, 271-282. DOI 10.1007/s10584-013-0990-2.

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- 21) Nik, V.M., Sasic Kalagasidis, A. and **Kjellström, E.**, 2012. Assessment of hygrothermal performance and mould growth risk in ventilated attics in respect to possible climate changes in Sweden. *Building and Environment*, 55, 96-109. doi:10.1016/j.buildenv.2012.01.024.
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- 25) Brandefelt, J., **Kjellström, E.**, Näslund, J.-O., Strandberg, G., Voelker, A. H. L., and Wohlfarth, B., 2011. A coupled climate model simulation of Marine Isotope Stage 3 stadial climate, *Clim. Past*, 7, 649-670, doi:10.5194/cp-7-649-2011.
- 26) Strandberg, G., Brandefelt, J., **Kjellström E.**, Smith, B., 2011. High resolution regional simulation of Last Glacial Maximum climate in Europe. *Tellus*, 63A(1), 107-125. DOI: 10.1111/j.1600-0870.2010.00485.x.
- 27) Andersson, L., Samuelsson, P. and **Kjellström, E.**, 2011. Assessment of climate change impact on water resources in the Pungwe river basin. *Tellus*, 63A(1), 138-157. DOI: 10.1111/j.1600-0870.2010.00480.x.
- 28) Samuelsson, P., Jones, C., Willén, U., Ullerstig, A., Gollvik, S., Hansson, U., **Kjellström, E.**, Nikulin, G., Wyser, K., 2011. The Rossby Centre Regional Climate Model RCA3: Model description and performance. *Tellus*, 63A(1), 4-23. DOI: 10.1111/j.1600-0870.2010.00478.x.
- 29) **Kjellström, E.**, Nikulin, G., Hansson, U., Strandberg, G. and Ullerstig, A., 2011. 21<sup>st</sup> century changes in the European climate: uncertainties derived from an ensemble of regional climate model simulations. *Tellus*, 63A(1), 24-40. DOI: 10.1111/j.1600-0870.2010.00475.x.
- 30) Nikulin, G., **Kjellström, E.**, Hansson, U., Jones, C., Strandberg, G. and Ullerstig, A., 2011. Evaluation and Future Projections of Temperature, Precipitation and Wind Extremes over Europe in an Ensemble of Regional Climate Simulations. *Tellus*, 63A(1), 41-55. DOI: 10.1111/j.1600-0870.2010.00466.x.

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- 38) **Kjellström, E.** and Lind, P., 2009. Changes in the water budget in the Baltic Sea drainage basin in future warmer climates as simulated by the regional climate model RCA3. *Boreal Env. Res.* 14: 114–124.
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- 41) **Kjellström, E.**, Bärring, L., Jacob, D., Jones, R., Lenderink, G and Schär, C., 2007. Modelling daily temperature extremes: Recent climate and future changes over Europe. *Climatic Change*. 81 (Suppl. 1), 249-265. doi:10007/s10584-006-9220-5.
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- 50) **Kjellström, E.**, 2004. Recent and future signatures of climate change in Europe. *Ambio*, 33(4-5), 193-198.
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- 52) Eneroth, K., **Kjellström, E.**, and Holmén, K., 2003. Inter-annual and seasonal variations in transport to a measuring site in western Siberia, and their impact on the observed atmospheric CO<sub>2</sub> mixing ratio. *J. Geophys. Res.*, 108, No D21, 4660, doi:10.1029/2002JD002730.
- 53) **Kjellström, E.**, Holmén, K., Eneroth, K. and Engardt, M., 2002. Summertime Siberian CO<sub>2</sub> simulations with the regional transport model MATCH: A feasibility study of carbon uptake calculations from EUROSIB data. *Tellus* 54B, 834-849.
- 54) Huebert, B.J., Phillips, C.A., Zhuang, L., **Kjellström E.**, Rodhe, H., Feichter, J. and Land, C., 2001. Long-term Measurements of Free-Tropospheric Sulfate at Mauna Loa: Comparison with Global Model Simulations. *J. Geophys. Res.*, 106, 5479-5492.
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#### *Submitted manuscripts:*

- 1) Strandberg, G. and **Kjellström, E.**, 2017. Climate impacts from afforestation and deforestation in Europe. Submitted to *Earth Interactions*, in review.

#### *In preparation:*

- 1) Caian, M., Jönsson, A., Wyser, K., **Kjellström, E.** and Schödl, S., 2018. Mid-latitude cyclone trajectories related to sea level height extremes in Sweden:

- Recent past and future climate conditions. In prep. for *Tellus*
- 2) Rana, A., Nikulin, G., **Kjellström, E.**, Wilcke, R., Hansson, U. and Kolax, M., 2018. Evaluation of climatic changes over South-Asia in an ensemble of regional climate simulations. In prep for ??
  - 3) **Kjellström, E.**, Nikulin, G. and Hansson, U., 2018. 21<sup>st</sup> century changes in the South American climate: uncertainties derived from an ensemble of regional climate model simulations. In prep for *Climate Dynamics*
  - 4) Gbobaniyi, E., Nikulin, G., Jones, C. and **Kjellström, E.**, 2018. Projections of future drought indices in the RCA4 CORDEX Africa ensemble and in its driving AOGCMs. In preparation for *Climate Dynamics*
  - 5) **Kjellström, E.**, Nikulin, G., Gbobaniyi, E. and Jones, C., 2018. Future changes in the African temperature and precipitation climate in an ensemble of Africa-CORDEX regional climate model simulations. In preparation for *Climate Dynamics*

*Conferences and proceedings (submitted in italics):*

- 1) Wu, M., Nikulin, G., **Kjellström, E.**, May, W., Schurgers, G., Miller, P.A., Smith, B., Rummukainen, M. and Ahlström, A., 2018. Can vegetation feedback mitigate climate extremes under future climate change for Africa? Geophysical Research Abstracts Vol. 20, EGU2018-14364, EGU General Assembly 2018.
- 2) Nikulin, G., Lennard, C., Dosio, A., **Kjellström, E.**, Chen, Y., Hänsler, A., Kupiainen, M., Laprise, R., Mariotti, L., Fox Maule, C., van Meijgaard, E., Panitz, H.-J., Scinocca, J., and Somot, S., 2018. 1.5 and 2 degrees of global warming in the CORDEX-Africa ensemble. Geophysical Research Abstracts Vol. 20, EGU2018-5507, EGU General Assembly 2018
- 3) **Kjellström, E.**, Nikulin, G., Strandberg, G., Christensen, O. B., Jacob, D., Keuler, K., Lenderink, G., van Meijgaard, E., Schär, C., Somot, S., Sørland, S. L., Teichmann, C. and Vautard, R., 2018. Climate change in Europe at global mean temperature increases of 1.5 and 2°C above pre-industrial conditions according to EURO-CORDEX RCM simulations. Geophysical Research Abstracts Vol. 20, EGU2018-8992, EGU General Assembly 2018
- 4) Sørland, S., Schär, C., Lüthi, D. and **Kjellström, E.**, 2017. Regional climate models reduce biases of global models and project smaller European summer warming. AGU Fall Meeting 2017.
- 5) **Kjellström, E.**, Nikulin, G., Rana, A. and Fuentes-Franco, R., 2017. Future changes in South American temperature and precipitation in an ensemble of CORDEX regional climate model simulations. Geophysical Research Abstracts Vol. 19, EGU2017-12819. EGU General Assembly 2017.
- 6) **Kjellström, E.**, Nikulin, G., Strandberg G. and the EURO-CORDEX team. 2017. Regional climate change over Europe at specific significant warming levels in a range of EURO-CORDEX regional downscalings at 0.11° resolution. Geophysical Research Abstracts Vol. 19. EGU2017-12609. EGU General Assembly 2017.
- 7) Nikulin, G., **Kjellström, E.**, Fuentes-Franco, R., 2017. Future changes in Central American temperature and precipitation in an ensemble of CORDEX regional climate model simulations. Geophysical Research Abstracts Vol. 19. EGU2017-

8716. EGU General Assembly 2017.

- 8) Wijngaard, J., Liggins, F., vd Hurk, B., Lavers, D., Magnusson, L., Bouwer, L., Weerts, A., **Kjellström, E.**, Mañez, M., Ramos, M.-H., Hananel, C., Ercin, E., Hunink, J., Klein, B., Pouget, L., and de Moel, H., 2017. Improving Predictions and Management of Hydrological Extremes. Geophysical Research Abstracts Vol. 19. EGU2017-7753. EGU General Assembly 2017.
- 9) Bukovsky, M., Mearns, L., Arritt, R., Castro, C., Chang H.-I., Christensen, J., Christensen, O., Frigon, A., Gutowski, W., **Kjellström, E.**, Laprise, R., McGinnis, S., Nikulin, G., Scinocca, J., Sushama, L., and Winger, K., 2017. NA-CORDEX: Overview and Sample Results. Geophysical Research Abstracts Vol. 19. EGU2017-5705. EGU General Assembly 2017.
- 10) **Kjellström, E.**, Barring, L., Nikulin, G., Nilsson, C., Persson, G., and Strandberg, G., 2016. Production and use of regional climate model projections – a Swedish perspective on building climate services. The 4th Nordic Conference on Climate Change Adaptation, “Regional climate forecasts and projections”, Bergen, 29th August 2016 (invited)
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