# CURRICULUM VITAE – Jonas Olsson

## Personal data and current employment

Born: 19 February 1964 in Gudmuntorp, Sweden
Citizenship: Swedish
Languages: Swedish and English (fluent);
Japanese, French and German (fair)

Group Manager at: Research & Development (hydrology)
Swedish Meteorological and Hydrological Institute
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## Main fields of research

- Rainfall-runoff modelling and forecasting
- Climate change impacts on hydrology
- Rainfall disaggregation and downscaling
- Uncertainty in hydrological modelling
- Nonlinear and scaling approaches in hydrology

## Work tasks

- Scientific Lead in hydrology research
- Leader and member of research projects
- Hydrologist on duty for Sweden
- Author and reviewer of applications, papers, etc.
- Supervisor of young researchers

## Academic degrees

- **2010** Awarded the title of Reader (Docent) in Water Resources Engineering at the Faculty of Engineering, Lund University, Sweden
- **1996** Ph.D. in Water Resources Engineering (hydrology) at the Faculty of Engineering, Lund University, Sweden
- **1989** M.Sc. in Civil Engineering at the Faculty of Engineering, Lund University, Sweden

## Employment etc.

- **2010-2011** Associate research professor at Tokyo Metropolitan University (6 months)
- **2005, 2007, 2014** Parental leave (3×6 months)
- **2001** Research associate at Lund University, Sweden
- **1997-2000** Post-Doc at Kyushu University, Fukuoka, Japan (EU S&T Fellowship)
- **1989-1996** Doctoral candidate and Research assistant at Lund University, Sweden

## Supervision and teaching

- **2015-present** Lecturer in M.Sc. course *Water, society and climate change* at Lund University
- **2021** Co-supervision of M.Sc. thesis by Daniel Elfström and Max Stefansson, Uppsala University: *How design storms with normally distributed intensities customized from precipitation radar data in Sweden affect the modeled hydraulic response to extreme rainfalls*
- **2021** Co-supervision of M.Sc. thesis by Louis Rulewski Stenberg, Uppsala University: *High frequency rainfall data disaggregation with a random cascade model*
- **2020** Co-supervision of M.Sc. thesis by Sofia Litsmark, Uppsala University: *Investigating the relationship between circulation patterns and cloudburst character in a changing climate*
- **2018** Co-supervision of M.Sc. thesis by Samuel Hermelin, Royal Institute of Technology: *Differences in consequences between peak arrivals and movement directions of an extreme rainfall in flood modeling*
- **2015-2016** Co-supervision of M.Sc. thesis by Cajsa-Lisa Ivarsson, Lund University: *High-resolution ensemble flood forecasting in Höje Å*
- **2010-2019** Co-supervision of Ph.D. thesis by Kean Foster, Lund University: *Seasonal hydrological forecasting in Sweden*
- **2009-2011** Co-supervision of M.Sc. thesis by Hiromi Boda, Tokyo Metropolitan University: *Spatio-temporal characteristics of 15-min precipitation in Sweden*

- **2002-2009** Co-supervision of Ph.D. thesis by Sihem Testouri, Lund University*: Water erosion modelling using fractal rainfall disaggregation*
- **2002-2003** Co-supervision of M.Sc. thesis by Jörgen Rosberg, Uppsala University: *Modeling phosphorus transport and retention in river networks*
- **2001-2005** Co-supervision of Ph.D. thesis by Pernilla Öhrström, Lund University: *Unsaturated solute transport in a semiarid catchment*
- **2000-2001** Co-supervision of M.Sc. thesis by Izumi Ishikawa, Kyushu University: *Rainfall estimation model in the Chikugo River Basin by statistical atmospheric downscaling using artificial neural networks*
- **1997-1998** Co-supervision of Ph.D. thesis by Tarek Merabtene, Kyushu University: *Decision Support System for water resources management*
- **1990-2001** Frequent course assistant in hydraulics and hydrological modelling for M.Sc. students

## International work

- **2007, 2010, 2013** Tokyo Metropolitan University, Tokyo, Japan (1+1+2 months; funded by Scandinavia-Japan Sasakawa Foundation and Royal Academy of Sciences/JSPS)
- **1992, 2002, 2004** Kyushu University, Fukuoka, Japan (1+1+2 months; funded by Royal Academy of Sciences/JSPS, Scandinavia-Japan Sasakawa Foundation and J. G. Richerts Memorial Foundation)
- **1993/1994** Université Pierre & Marie Curie, Paris, France (4 months; funded by Åke and Greta Lissheds Foundation)
- **1991** Politecnico di Milano, Milan, Italy (2 months; funded by Axel and Margaret Ax:son Johnsons Foundation)
- **Since 1996** Short (>1 month) visits to Institute of Hydrology (Wallingford, UK), Swiss Federal Institute of Technology (ETH) (Zürich, Switzerland), Kyushu University (Fukuoka, Japan), Tokyo Metropolitan University (Tokyo, Japan) and Nara Institute of Science and Technology (Nara, Japan)

## Scientific commitments

### ASSIGNMENTS & AWARDS

- **2021-2025** Swedish delegate in the Management Committee of COST Action CA20136 OPENSENSE *Opportunistic Precipitation Sensing Network*
- **2021** Faculty opponent of Jonas Wied Pedersen, Technical University of Denmark, Ph.D. thesis *Using Numerical Weather Prediction and in-sewer sensor data for real-time monitoring and forecasting in urban drainage-wastewater systems*
- **2020** Invited expert in the project *Sustainable water – climate change* by Royal Swedish Academy of Engineering Sciences
- **2019** Faculty opponent of Barbara Blumentahl, Karlstad University, Techn.Lic. thesis *Precipitation intensity and other factors affecting cloudburst damage*
- **2017** Ph.D. dissertation board member of Lotten Wiréhn, Linköping University, Ph.D. thesis *Climate vulnerability assessment methodology – A study for Nordic agriculture*
- **2015** Faculty opponent of Hong Li, University of Oslo, Ph.D. thesis *Hydrological modelling of mountainous and glacierised regions under changing climate*
- **2014** Faculty opponent of Hjalte Jomo Danielsen Sørup, Technical University of Denmark, Ph.D. thesis *Modelling of spatio-temporal precipitation relevant for urban hydrology with focus on scales, extremes and climate change*
- **2013** Ph.D. dissertation board member of Claudia Teutschbein, Stockholm University, Ph.D. thesis *Hydrological modelling for climate change impact assessment*
- **2013** Ph.D. dissertation board member of Tinghai Ou, University of Gothenburg, Ph.D. thesis *Observed and simulated changes in extreme precipitation and cold surges in China: 1961-2005*
- **2012** Co-author of paper awarded the large prize of Nordic Association for Hydrology for best publication in Hydrology Research during the last 2 years.
- **2012-present** Deputy Auditor of Nordic Association for Hydrology
- **2012** Faculty opponent of Noora Veijalainen, Finnish Environment Institute, Ph.D. thesis *Estimation of climate change impacts on hydrology and floods in Finland*

- **2011-2015** Swedish delegate in the Management Committee of COST Action ES1102 VALUE *Validating and Integrating Downscaling Methods for Climate Change Research*
- **2009-2013** Steering group member of Swedish Road Authority project *Adaptation of road drainage structures to climate change*
- **2007** Ph.D. dissertation board member of Amad Mohammad Kalteh, Lund University, Ph.D. thesis *Rainfall-runoff modelling using artificial neural networks (ANNs)*
- **2005-2010** Swedish delegate in the Management Committee of COST Action 731 *Propagation of Uncertainty in Advanced Meteo-Hydrological Forecast Systems*

## INVITED TALKS

- **2020** Downscaling climate projections – towards better adaptation strategies in the Nordic countries, online
- **2020** Sewer Networks and Climate, Malmö, Sweden
- **2016** Research and Innovation for Sustainable Stormwater Management, Stockholm, Sweden
- **2015** Modeling Hydrology, Climate and Land Surface Processes, Lillehammer, Norway
- **2015** European Geosciences Union General Assembly, Vienna, Austria
- **2011** Urban Hydrology and Storm Water Management, Lund, Sweden
- **2011** IUGG, Earth on the Edge: Science for a Sustainable Planet, Melbourne, Australia
- **2010** KlimatGIS-dagar, Stockholm, Sweden
- **2009** Water Fairs (VA-mässan), Stockholm, Sweden
- **2009** Nordic Hydrology, Fundamentals and Market Analysis, Oslo, Norway
- **2006** Joint COST Action 731 and NetFAM Workshop on Uncertainty in High-Resolution Meteorological and Hydrological Models, Vilnius, Lithuania
- **2001** International Workshop on Scaling Problems in Hydrology, Austrian Academy of Sciences, Vienna, Austria

## CONFERENCES

- **2020** Nordic Hydrological Conference, Tallinn, Estonia (scientific committee member)
- **2018** Hydrofractals'18, Constanta, Romania (scientific committee member)
- **2012** Nordic Hydrological Conference, Oulu, Finland (scientific committee member)
- **2009** 9th European Conference on Applications of Meteorology (ECAM), Toulouse, France (co-convener at the session on Hydrology)
- **2003** Hydrofractals'03, Ascona, Switzerland (scientific committee member)
- **1997-2000** European Geophysical Society General Assembly (co-convener (and sometimes chairman) at the session on Nonlinear Processes in Geophysics)
- **1994** International Workshop on Closing the Gap Between Theory and Practice in Urban Rainfall Applications, St. Moritz, Switzerland (chairman)

## REVIEWING

- **Article manuscripts (since 1996)** Journal of Hydrology (>5); Journal of Geophysical Research (>3); Atmospheric Research (>3); Water Resources Research (>3); Hydrology and Earth System Sciences (>1); Soil Science Society of America Journal (>1); Hydrological Processes (>1); Stochastic Environmental Research and Risk Assessment (>1); Urban Water (>1); International Journal of Climatology (1); Water, Air and Soil Pollution (1); Physics and Chemistry of the Earth (1); Water Science and Technology (1); Journal of Applied Meteorology (1); Nonlinear Processes in Geophysics (1); Journal of Contaminant Hydrology (1); Nordic Hydrology (1); Hydrological Sciences Journal (1); Climatic Change (1); Advances in Geosciences (1); Advances in Water Resources (1); Climatic Change Letters (1); Climate Dynamics (1); Meteorology and Atmospheric Physics (1); Journal of Hydrometeorology (1); Advances in Science and Research (1)
- **Project applications (since 2000)** Natural Sciences and Engineering Research Council of Canada (4); National Science Foundation, USA (2); Natural Environment Research Council, UK (1); Netherlands Organisation for Scientific Research (1); French National Research Agency (ANR) (1)
- **Conference contributions** 9th Intl. Conf. on Urban Drainage Modelling (2012); XXVII Nordic Hydrological Conference (2012); 18th World IMACS/MODSIM09 Congress (2009); 11th Intl. Conf. on Urban Drainage (2008)

- **Book chapters** *Green House Gas Emissions and Climate Change*, ASCE (2011); *Advances in data-based approaches for hydrologic modeling and forecasting*, World Scientific Publishing Company (2008)

## Project management

- **2019-2022** Work Package leader in the EU Water JPI project *GlobalHydroPressure*
- **2016-2019** Coordinator of the EU Water JPI project MUFFIN *Multi-scale Urban Flood Forecasting*
- **2016-2017** Work Package leader in the EU Copernicus project Urban SIS *Climate Information for European Cities*
- **2010-2012** Work Package leader in the EU FP7 project SUDPLAN *Sustainable Urban Development Planner for Climate Change Adaptation*
- **2010-2014** Project Manager of Formas project HYDRIMPACTS2.0 *Hydrological Climate Impact Scenarios*
- **2003-2004** Work Package leader in the EU FP5 project CARPE DIEM *Critical Assessment of available Radar Precipitation Estimation techniques and Development of Innovative approaches for Environmental Management*
- **2001-present** Frequent manager of national research projects

## Publications

### SCIENTIFIC JOURNALS (PEER-REVIEWED)

**J1.** Glaas, E., Bohman, A., Karlson, M., Navarra, C., Olsson, J., Hundecha, Y., Opach, T., Cederlund, D., Sjulander, J., Neset, T.-S.. and B.-O. Linnér (2022) Development and user testing of the ICT-platform Visual Water supporting sustainable municipal stormwater planning, Urban Water J., submitted.

**J2.** Rosbjerg, D., Engeland, K., Førland, E., Haghighi, A.T., Mehr, A.D., and J. Olsson (2022) Nordic contributions to stochastic methods in hydrology, Hydrol. Res., in press.

**J3.** Olsson, J., Dyrrdal, A.V., Médus, E., Södling, J., Aniskeviča, S., Arnbjerg-Nielsen, K., Førland, E., Mačiulytė, V., Mäkelä, A., Post, P., Thorndahl, S.L., and L. Wern (2022) Sub-daily rainfall extremes in the Nordic-Baltic region, Hydrol. Res., in press.

**J4.** Médus, E., Thomassen, E.D., Belušić, D., Lind, P., Berg, P., Christensen, J.H., Christensen, O.B., Dobler, A., Kjellström, E., Olsson, J., and W. Yang (2022) Characteristics of precipitation extremes over the Nordic region: added value of convection-permitting modeling, Natural Hazards Earth System Sci., 22, 693-711, doi: 10.5194/nhess-22-693-2022.

**J5.** Dyrrdal, A.V., Olsson, J., Toivonen, E., Arnbjerg-Nielsen, K., Post, P., Aniskeviča, S., Thorndahl, S.L., Førland, E., Wern, L., Mačiulytė, V., and A. Mäkelä (2021) Observed changes in heavy daily precipitation over the Nordic-Baltic region, J. Hydrol. Reg. Stud., 38, 100965, doi: 10.1016/j.ejrh.2021.100965.

**J6.** Olsson, J., Du, Y., An, D., Uvo, C.B., Toivonen, E., Belušić, D., and A. Dobler (2021) An analysis of (sub-)hourly rainfall in convection-permitting climate simulations over southern Sweden from a user's perspective, Frontiers Earth Sci., 9:681312, doi: 10.3389/feart.2021.681312.

**J7.** Olsson, J., Berg, P., and R. van de Beek (2021) Visualization of radar-observed rainfall for hydrological risk assessment, Adv. Sci. Res., 18, 59-64, doi: 10.5194/asr-18-59-2021.

**J8.** Uvo, C.B., Foster, K., and J. Olsson (2021) The spatio-temporal influence of atmospheric teleconnection patterns on hydrology in Sweden, J. Hydrol. Reg. Stud., 34, 100782, doi: 10.1016/j.ejrh.2021.100782.

**J9.** van de Beek, R., Olsson, J., and J. Andersson (2020) Optimal grid resolution for precipitation maps from commercial microwave link networks, Adv. Sci. Res., 17, 79-85, doi: 10.5194/asr-17-79-2020.

**J10.** Hosseini., S.H., Hashemi, H., South, N., Aspegren, H., Berndtsson, R., Larsson, R., Olsson, J., Persson, A., Olsson, L., and A. Marmbrandt (2020) Evaluation of a new X-band weather radar for operational use in South Sweden, Water Sci. Technol., 81, 1623-1635, wst2020066, doi: 10.2166/wst.2020.066.

**J11.** Schleiss, M., Olsson, J., Berg, P., Niemi, T., Kokkonen, T., Thorndahl, S., Nielsen, R., Ellerbæk Nielsen, J., Bozhinova, D., and S. Pulkkinen (2020) The accuracy of weather radar in heavy rain: a comparative study for Denmark, the Netherlands, Finland and Sweden, Hydrol. Earth System Sci., 24, 3157-3188, doi: 10.5194/hess-24-3157-2020.

**J12.** Du, T.L.T, Lee, H., Bui, D.D., Arheimer, B., Li, H.-Y., Olsson, J., Darby, S.E., Sheffield, J., Kim, D., and E. Hwang (2020) Streamflow prediction in "geopolitically ungauged" basins using satellite observations and regionalization at subcontinental scale, J. Hydrol., 588, 125016, doi: 10.1016/j.jhydrol.2020.125016.

**J13.** Kalantari, Z., Santos Ferreira, C.S., Page, J., Goldenberg, R., Olsson, J., and G. Destouni (2019) Meeting sustainable development challenges in growing cities: coupled social-ecological systems modeling of land use and water changes, J. Env. Managem., 245, 471-480, doi: 10.1016/j.jenvman.2019.05.086.

**J14.** Gidhagen, L., Olsson, J., Amorim, J.H., Asker, C., Belusic, D., Carvalho, A.C., Engardt, M., Hundecha, Y., Körnich, H., Lind, P., Lindstedt, D., Olsson, E., Rosberg, J., Segersson, D., and L. Strömbäck (2019) Towards climate services for European cities: lessons learnt from the Copernicus Climate Change Service Urban SIS, Urban Clim., 31, 100549, doi: 10.1016/j.uclim.2019.100549.

**J15.** Persson, M., Selim, T., and J. Olsson (2019) Groundwater contamination risks from point source pollutants in a future climate, Hydrol. Sci. J., 64(13), 1659-1671, doi: 10.1080/02626667.2019.1662022.

**J16.** Berg, P., Christensen, O.B., Klehmet, K., Lenderink, G., Olsson, J., Teichmann, C., and W. Yang (2019) Summertime precipitation extremes in a EURO-CORDEX 0.11° ensemble at an hourly resolution, Natural Hazards Earth System Sci., 19, 957-971, doi: 10.5194/nhess-19-957-2019.

**J17.** Tanouchi, H., Olsson, J., Lindström, G., Kawamura, A., and H. Amaguchi (2019) Improving urban runoff in multi-basin hydrological simulation by the HYPE model using EEA Urban Atlas: a case study in the Sege River Basin, Sweden, Hydrology, 6(1), 28, doi: 10.3390/hydrology6010028.

**J18.** Olsson, J., Södling, J., Berg, P., Wern, L., and A. Eronn (2019) Short-duration rainfall extremes in Sweden: a regional analysis, Hydrol. Res., nh2019073, doi: 10.2166/nh.2019.073.

J19. Amorim, J.H., Asker, C., Belusic, D., Carvalho, A.C., Engardt, M., Gidhagen, L., Hundecha, Y., Körnich, H., Lind, P., Olsson, E., Olsson, J., Segersson, D., and L. Strömbäck (2018) Integrated Urban Services for European cities: the Stockholm case, WMO Bulletin, 67, 33-40.

J20. Grahn, T., and J. Olsson (2018) Insured flood damage in Sweden, 1987-2013, J. Flood Risk Manag., e12465, doi: 10.1111/jfr3.12465.

J21. Foster, K., Uvo, C.B., and J. Olsson (2018) The development and testing of a hydrological seasonal forecast system prototype for predicting spring flood volumes in Swedish rivers, Hydrol. Earth System Sci., 22, 2953-2970, doi: 10.5194/hess-22-2953-2018.

J22. Selim, T., Persson, M., and J. Olsson (2017) Impact of spatial rainfall resolution on point source solute transport modelling, Hydrol. Sci. J., 62:16, 2587-2596, doi: 10.1080/02626667.2017.1403029.

J23. Olsson, J., Bengtsson, L., Pers, B.C., Berg, P., Pechlivanidis, I., and H. Körnich (2017) Distance-dependent depth-duration analysis in high-resolution hydro-meteorological ensemble forecasting: a case study in Malmö, Sweden. Environ. Model. Softw., 93, 381-397, doi:10.1016/j.envsoft.2017.03.025.

J24. Olsson, J., Arheimer, B., Borris, M., Donnelly, C., Foster, K., Nikulin, G., Persson, M., Perttu, A.-M., Uvo, C.B., Viklander, M., and W. Yang (2016) Hydrological climate change impact assessment at small and large scales: key messages from recent progress in Sweden, Climate, 4, 39, doi:10.3390/cli4030039.

J25. Berg, P., Norin, L., and J. Olsson (2016) Creation of a high resolution precipitation data set by merging gridded gauge data and radar observations for Sweden, J. Hydrol., 541, 6-13, doi:10.1016/j.jhydrol.2015.11.031.

J26. Pechlivanidis, I.G., Olsson, J., Bosshard, T., Sharma, D., and K.C. Sharma (2016) Multi-basin modelling of future hydrological fluxes in the Indian subcontinent, Water, 8, 177, doi:10.3390/w8050177.

J27. Akselsson, C., Olsson, J., Belyazid, S., and R. Capell (2016) Can increased weathering rates due to future warming compensate for base cation losses at whole-tree harvesting?, Biogeochemistry, 128, 89-105, doi:10.1007/s10533-016-0196-6.

J28. Olsson, J., Uvo, C.B., Foster, K., and W. Yang (2016) Technical Note: Initial assessment of a multi-method approach to spring flood forecasting in Sweden, Hydrol. Earth System Sci., 20, 1-9, doi:10.5194/hess-20-1-2016.

J29. Yang, W., Gardelin, M., Olsson, J., and T. Bosshard (2015) Multi-variable bias correction: application of forest fire risk in present and future climate in Sweden, Natural Hazards Earth System Sci., 15, 2037-2057, doi:10.5194/nhess-15-2037-2015.

J30. Olsson, J., Berg, P., and A. Kawamura (2015) Impact of RCM spatial resolution on the reproduction of local, sub-daily precipitation, J. Hydrometeorol., 16, 534–547, doi:10.1175/JHM-D-14-0007.

J31. Pechlivanidis, I.G., Olsson, J., Sharma, D., Bosshard, T., and K.C. Sharma (2015) Assessment of the climate change impacts on the water resources of the Luni region, India, Global NEST Journal, 17(1), 29-40.

J32. Rana, A., Foster, K., Bosshard, T., Olsson, J., and L. Bengtsson (2014) Impact of climate change on rainfall over Mumbai using Distribution-Based Scaling of Global Climate Model projections, J. Hydrol. Reg. Stud., 1, 107-128, doi:10.1016/j.ejrh.2014.06.005.

J33. Olsson, J., and K. Foster (2014) Short-term precipitation extremes in regional climate simulations for Sweden, Hydrol. Res., 45.3, 479-489, doi:10.2166/nh.2013.206.

J34. Olsson, J., Simonsson, L., and M. Ridal (2014) Rainfall nowcasting: predictability of short-term extremes in Sweden, Urban Water J., 11, doi:10.1080/1573062X.2013.847465.

J35. Rana, A., Bengtsson, L., Jothiprakash, D., Singh., W., and J. Olsson (2013) Development of IDF-curves for tropical india by random cascade modeling, Hydrol. Earth Syst. Sci. Discuss., 10, 4709-4738, doi:10.5194/hessd-10-4709-2013.

J36. Dahné, J., Donnelly, C., and J. Olsson (2013) Post-processing of climate projections for hydrological impact studies, how well is reference state preserved?, IAHS Publications 359, 53-59.

J37. Arnbjerg-Nielsen, K., Willems, P., Olsson, J., Beecham, S., Pathirana, A., Bülow Gregersen, I., Madsen, H., and V.T.V. Nguyen (2013) Impacts of climate change on rainfall extremes and urban drainage systems: a review, Water Sci. Technol., 68, 16-28, doi:10.2166/wst.2013.251.

J38. Olsson, J., Amaguchi, H., Alsterhag, E., Dåverhög, M., Adrian, P.-E., and A. Kawamura (2013) Adaptation to climate change impacts on urban storm water: a case study in Arvika, Sweden, Clim. Chang., 116, 231-247, doi:10.1007/s10584-012-0480-y.

J39. Olsson, J., Gidhagen, L., Gamerith, V., Gruber, G., Hoppe, H., and P. Kutschera (2012) Downscaling of short-term precipitation from Regional Climate Models for sustainable urban planning, Sustainability,

4, 866-887, doi:10.3390/su4050866.

J40. Jebari, S., Berndtsson, R., Olsson, J., and A. Bahri (2012), Soil erosion estimation based on rainfall disaggregation, J. Hydrol., 436-437, 102-110, doi: 10.1016/j.jhydrol.2012.03.001.

J41. Amaguchi, H., Kawamura, A., Olsson, J., and T. Takasaki (2012) Development and testing of a distributed urban storm runoff event model with a vector-based catchment delineation, J. Hydrol., 420-421, 205-215, doi:10.1016/j.jhydrol.2011.12.003.

J42. Olsson, J., Willén, U., and A. Kawamura (2012) Downscaling extreme Regional Climate Model (RCM) precipitation for urban hydrological applications, Hydrol. Res., 43, 341-351, doi:10.2166/nh.2012.135.

J43. Willems, P., Arnbjerg-Nielsen, K., Olsson, J., and V.T.V. Nguyen (2012) Climate change impact assessment on urban rainfall extremes and urban drainage: methods and shortcomings, Atmos. Res., 103, 106-118, doi:10.1016/j.atmosres.2011.04.003.

J44. Jin, Y.-H., Kawamura, A., Park, S.-C., Amaguchi, H., Nakagawa, N., and J. Olsson (2011) Spatiotemporal classification of environmental monitoring data in the Yeongsan River basin, Korea, using self-organizing map, J. Environ. Monit., 13, 2886-2894, doi:10.1039/c1em10132c.

J45. Olsson, J., Gidhagen L., and A. Kawamura (2011), Downscaling of short-term precipitation time series for climate change impact assessment. Environmental Software Systems. Frameworks of eEnvironment - 9th IFIP WG 5.11 International Symposium, ISESS 2011, Brno, Czech Republic, June 27-29, doi: 10.1007/978-3-642-22285-6_67.

J46. Olsson, J., Yang, W., Graham, L.P., Rosberg, J., and J. Andréasson (2011) Using an ensemble of climate projections for simulating recent and near-future hydrological change to Lake Vänern in Sweden, Tellus, 63A, 126-137, doi:10.1111/j.1600-0870.2010.00476.x.

J47. Arheimer, B., Lindström, G., and J. Olsson (2011) A systematic review of sensitivities in the Swedish flood-forecasting system, Atmos. Res., 100, 275-284, doi:10.1016/j.atmosres.2010.09.013.

J48. Bruen, M., Krahe, P., Zappa, M., Olsson, J., Vehvilainen, B., Kok, K., and K. Daamen (2010) Visualizing flood forecasting uncertainty: some current European EPS platforms - COST731 working group 3, Atmos. Sci. Lett., 11, 92-99, doi:10.1002/asl.258

J49. Yang, W., Andréasson, J., Graham, L.P., Olsson, J., Rosberg, J., and F. Wetterhall (2010) Distribution-based scaling to improve usability of regional climate model projections for hydrological climate change impact studies, Hydrol. Res., 41, 211-229, doi: 10.2166/nh.2010.004.

J50. Olsson, J., Berggren, K., Olofsson, M., and M. Viklander (2009) Applying climate model precipitation scenarios for urban hydrological assessment: a case study in Kalmar City, Sweden, Atmos. Res., 92, 364-375, doi:10.1016/j.atmosres.2009.01.015.

J51. Graham, L.P., Olsson, J., Rosberg, J., Hellström, S.-S., Kjellström, E., and R. Berndtsson (2009) Simulating river flow to the Baltic Sea from climate simulations over the past millennium, Boreal Env. Res., 14, 173-182.

J52. Persson, M., and J. Olsson (2009) Scaling analyses of high-resolution dye tracer experiments, Hydrol. Sci. J., 53, 1286-1299, doi: 10.1623/hysj.53.6.1286.

J53. Olsson, J., and G. Lindström (2008) Evaluation and calibration of operational hydrological ensemble forecasts in Sweden, J. Hydrol., 350, 14-24, doi:10.1016/j.jhydrol.2007.11.010.

J54. Johnell, A., Lindström, G., and J. Olsson (2007) Deterministic evaluation of ensemble stream flow predictions in Sweden, Nordic Hydrol., 38, 441-450, doi:10.2166/nh.2007.022.

J55. Olsson, J., Persson, M., and K. Jinno (2007) Analysis and modeling of solute transport by breakdown coefficients and random cascades, Water Resour. Res., 43, W03417, doi:10.1029/2005WR004631.

J56. Nishiyama, K., Endo, S., Jinno, K., Uvo, C.B., Olsson, J., and R. Berndtsson (2007) Identification of typical synoptic patterns causing heavy rainfall in the rainy season in Japan by a Self-Organizing Map, Atmos. Res., 83, 185-200, doi:10.1016/j.atmosres.2005.10.015.

J57. Olsson, J. (2006) Spatio-temporal precipitation error propagation in runoff modelling: a case study in central Sweden, Natural Hazards Earth System Sci., 6, 597-609, doi:10.5194/nhess-6-597-2006.

J58. Andersson, L., Rosberg, J., Pers, B.C., Olsson, J., and B. Arheimer (2005) Estimating catchment nutrient flow with the HBV-NP model - sensitivity to input data, Ambio, 34, 521-532, doi:10.1579/0044-7447-34.7.521.

J59. Persson, M., Haridy, S., Olsson, J., and J. Wendt (2005), Solute transport dynamics by high-resolution dye tracer experiments: image analysis and solute transport modeling, Vadose Zone J., 4, 856-865, doi:10.2136/vzj2004.0129.

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C51. Olsson, J., and L. Gidhagen (2012) Tailored rainfall input in urban hydrological climate change impact assessment, 9th International Conference on Urban Drainage Modelling, 3-7 September, Belgrade, Serbia.

C52. Foster, K., Olsson, J., Uvo, C.B., Yang W., and J. Södling (2012) A comparison of different approaches for forecasting spring floods in Sweden and the feasibility of a multi-model forecast system, Proceedings of XXVII Nordic Hydrological Conference (Nordic Water), 13-15 August, Oulu, Finland.

C53. Olsson, J., Gustafsson, A.-M., and M. Persson (2012) Evaluation of short-term precipitation in high-resolution RCM simulations over Sweden, Proceedings of XXVII Nordic Hydrological Conference (Nordic Water), 13-15 August, Oulu, Finland.

C54. Schlobinski, S., Gidhagen, L., Olsson, J., Frysinger, S., Denzer, R., and P. Kutschera (2012) Integration of climate change effects in local models and urban planning processes, Proceedings of iEMSs 6th International Congress on Environmental Modelling and Software, 1-5 July, Leipzig, Germany.

C55. Gamerith, V., Olsson, J., Camhy, D., Hochedlinger, M., Kutschera, P., Schlobinski, S., and G. Gruber (2012) Assessment of combined sewer overflows under climate change: urban drainage pilot study Linz, Proceedings of IWA World Congress on Water, Climate and Energy, 13-18 May, Dublin, Ireland.

C56. Foster, K., Olsson, J., Uvo, C.B., Yang, W., and J. Södling (2012) A comparison of different approaches for forecasting spring floods in Sweden, EGU General Assembly, 22-27 April, Vienna, Austria.

C57. Kutschera, P., Olsson, J., Havlik, D., and G. Gruber (2012) Future IDF curves for regional planning in Europe – a SUDPLAN result, EGU General Assembly, 22-27 April, Vienna, Austria.

C58. Johansson, B., Nyström, S., and J. Olsson (2011) Probability spring flood forecasts in Northern Sweden, Proceedings of CSHS Workshop on Operational River Flow and Water Supply Forecasting, 6-7 Oct, Burnaby, Canada.

C59. Olsson, J., Arheimer, B., and L. Gidhagen (2011) Regional Climate Model projections for urban hydrological planning and adaptation: the SUDPLAN project, Proceedings of World Water Week: Water in an Urbanising World, 21-27 August, Stockholm, Sweden.

C60. Olsson, J., Willén, U., and K. Foster (2011) Extreme short-term rainfall in regional climate model simulations for Sweden, Proceedings of the XXV IUGG General Assembly, 28 June - 7 July, Melbourne, Australia.

C61. Olsson, J., Dahné, J., Arheimer, B., Amaguchi, .H, and A Kawamura (2011) Man vs. machine: a Swedish experiment on hydrological model performance assessment (invited talk), Proceedings of the XXV

IUGG General Assembly, 28 June - 7 July, Melbourne, Australia.

C62. Olsson, J., Gidhagen, L., and A. Kawamura (2011) Downscaling of short-term precipitation time series for climate change impact assessment, Proceedings of International Symposium on Environmental Software Systems, 27-29 June, Brno, Czech Republic.

C63. Boda, H., Kawamura, A., Olsson, J., Amaguchi, H., Nakagawa, N., and B.D. Duong (2010) Spatio-temporal characteristics of 1-min rainfall in Tokyo, Proceedings of the 5th Conference of Asia Pacific Association of Hydrology and Water Resources, 8-9 November, Hanoi, Vietnam.

C64. Jin, Y.-H., Kawamura, A., Olsson, J., and S.-C. Park (2010) Pattern classification analysis of non-point source pollution using measured runoff and water quality data, Proceedings of the 5th Conference of Asia Pacific Association of Hydrology and Water Resources, 8-9 November, Hanoi, Vietnam.

C65. Olsson, J., Gidhagen, L., and A. Kawamura (2010) The SUDPLAN project: facilitating urban hydrological climate change impact assessment in Europe, Proceedings of the 5th Conference of Asia Pacific Association of Hydrology and Water Resources, 8-9 November, Hanoi, Vietnam.

C66. Olsson, J., Arheimer, B., Lindström, G., and J. Dahné (2010) Uncertainties in flood forecasting: experiences from the Swedish system, Proceedings of 6th European Conference on Radar in Meteorology and Hydrology, 6-10 September, Sibiu, Romania.

C67. Olsson, J., Dahné, J., German, J., and H. Amaguchi (2010) Urban hydrological climate change impact assessment: some Swedish experiences, Proceedings of XXVI Nordic Hydrological Conference, 9-11 August, Riga, Latvia.

C68. Berndtsson, R., Olsson, J., Sivakumar, B., and K. Jinno (2009) Dynamic links between climate and environmental change, Proceedings of International Symposium on Earth Science and Technology, 8-9 December, Fukuoka, Japan.

C69. Olsson, J., Yang, W., and U. Willén (2009) Application of RCM output for urban hydrological modeling, Proceedings of the 8th IAHS Scientific Assembly & 37th IAH Congress, 6-12 September, Hyderabad, India.

C70. Berndtsson, R., Sivakumar, B, Olsson, J. and L.P. Graham (2009) Climate change and its effects on regional hydrology: a case study for the Baltic Sea drainage basin, Proceedings of the 18th World IMACS/MODSIM09 Congress, 13-17 July, Cairns, Australia.

C71. Yang, W., Andréasson, J., Rosberg, J., Wetterhall, F., Olsson., J., and L.P. Graham (2009) Application of RCM to Climate Change Impact Study in Sweden, presented at FREE Workshop on Precipitation Downscaling and Modelling, 28-30 April, Norwich, UK.

C72. Olsson, J., Wetterhall, F., and U. Willén (2009) Estimation of point precipitation statistics from RCM output, EGU General Assembly, 19-24 April, Vienna, Austria, Geophys. Res. Abs., 11.

C73. Edlund, C., and J. Olsson (2008) WebHypro – a real-time presentation system for hydrological forecasting, presented at COST731 End-user day, 23 October, Dublin, Ireland.

C74. Olsson, J., Uvo, C.B., and E. Kjellström (2008) Downscaling of Regional Climate Model precipitation for urban hydrology, Proceedings of the 11th International Conference on Urban Drainage, 31 August - 5 September, Edinburgh, Scotland.

C75. Yang, W., Andréasson, J., Graham, L.P., Olsson, J., Rosberg, J., and F. Wetterhall (2008) A scaling method for applying RCM simulations to climate change impact studies in hydrology, Nordic Water 2008, 11-13 August, Reykjavík, Iceland.

C76. Olsson, J., and G. Lindström (2008) Can time-lagged meteorological forecasts improve hydrological predictions?, Proceedings of Joint 2nd MAP D-PHASE Scientific Meeting & COST 731 Mid-term Seminar, 19-22 May, Bologna, Italy, 39-41.

C77. Johansson, B., Olsson, J., and G. Haase (2008) Using radar observations for HBV rainfall-runoff simulations, Proceedings of International Symposium on Weather Radar and Hydrology, 10-15 March, Grenoble, France.

C78. Olsson, J., Uvo, C.B., and E. Kjellström (2008) Downscaling of ERA-40-driven Regional Climate Model precipitation, Proceedings of the 3rd WCRP International Conference on Reanalysis, 28 January - 1 February, Tokyo, Japan.

C79. Olsson, J., Graham, L.P., Rosberg, J., Hellström, S.-S., Kjellström, E., and R. Berndtsson (2007) Simulation of runoff in the Baltic Bea drainage basin during the past millennium, Proceedings of 5th Study Conference on Baltex, 4-8 June, Saarema, Estonia, 44-45.

C80. Olsson, J., Olofsson, M., Berggren, K., and M. Viklander (2006) Adaptation of RCA3 climate model data for the specific needs of urban hydrology simulations, Proceedings of 7th International Workshop on

Precipitation in Urban Areas, 7-10 December, 2006, St. Moritz, Switzerland.

C81. Johnell, A., Lindström, G., and J. Olsson (2006) Evaluation of ensemble stream flow predictions in Sweden, Nordic Water 2006, 6-9 August, Vingsted Centret, Denmark.

C82. Olsson, J., Lindström, G., Johnell, A., and K. Jacobsson (2006) Evaluation of operational hydrological ensemble forecasts in Sweden (invited talk), Proceedings of Joint COST Action 731 and NetFAM Workshop on Uncertainty in High-Resolution Meteorological and Hydrological Models, 26-28 April, Vilnius, Lithuania.

C83. Lindström, G., Johnell, A., and J. Olsson (2006) Evaluation of ensemble streamflow forecasting at SMHI, Proceedings of WMO CHR-Workshop Ensemble Predictions and Uncertainties in Flood Forecasting, 30-31 March, Bern, Switzerland, 55-59.

C84. Olsson, J., Scholten, H., Arheimer, B., and L. Andersson (2004) Quality assurance support tool for catchment-based modelling: a test on the HBV-NP model for eutrophication assessment, Proceedings of 8th International Conference on Diffuse/Nonpoint Pollution, 24-29 October, Kyoto, Japan, 241-248.

C85. Olsson, J., Johansson, B., and S. Fogelberg (2004) Tests of radar-observed precipitation in the HBV model, Proceedings of Third European Conference on Radar in Meteorology and Hydrology, 6-10 September, Visby, Sweden, 31.

C86. Yasuda, H., Berndtsson, R., Umegaki, Y., Persson, M., Sivakumar, B., Olsson, J., Jinno, K., and P. Öhrström (2003) A chaotic dynamical approach to simulate particle movement in the saturated zone, Proceedings of International Conference on Water and Environment, 15-18 December, Bhopal, India.

C87. Andersson, L., Arheimer, B., Larsson, M., Lindström, G., Olsson, J., Pers, B.C., Rosberg, J., Tonderski, K., and B. Ulén (2003) Integrated modelling of phosphorus fluxes at the catchment scale, Proceedings of 7th International Specialised Conference on Diffuse Pollution and Basin Management, International Water Association (IWA), 17-22 August, Dublin, Ireland, 2:85-90.

C88. Andersson, L., Arheimer, B., Larsson, M., Olsson, J., Pers, B.C., Rosberg, J., Tonderski, K., and B. Ulén (2003) HBV-P: a catchment model for phosphorus transport, Proceedings of Quantifying the Agricultural Contribution to Eutrophication, COST 832 Final Meeting, 31 July-2 August, Cambridge, U.K., 59-60.

C89. Olsson, J., Andersson, L., Arheimer, B., Lindström, G., Pers, B.C., and J. Rosberg (2003) A phosphorus transport model for scenario-based eutrophication assessment in catchments, Proceedings of International Union of Geodesy and Geophysics 2003 General Assembly, June 30-July 11, Sapporo, Japan, B.344.

C90. Olsson, J., Bengtsson, L., and L. Grahn (2002) Green roofs: a new tool for urban storm water management, Proceedings of International Conference on Urban Hydrology for the 21st Century, 14-16 October, Kuala Lumpur, Malaysia, 562-571.

C91. Arheimer, B., Andersson, L., Hansson, L.A., Jöborn, A., Lindström, G., Olsson, J., and B.C. Pers (2002) Modelling diffuse nutrient flow in eutrophication control scenarios, Proceedings of 6th International Conference on Diffuse Pollution, International Water Association (IWA), 30 September-4 October, Amsterdam, The Netherlands, 463-470.

C92. Olsson, J., Andersson, L., Arheimer, B., Hansson, L.A., Johnsson, H., Jöborn, A., Kallner, S., Kyllmar, K., Larsson, M., Leonardsson, L., Lindström, G., Pers, B.C., Tonderski, K., and B. Ulén (2002) Catchment modelling of diffuse nutrient transport in VASTRA – Swedish Water Management Research Programme, Proceedings of 3rd International Conference on Water Resources and Environment Research, 22-25 July, Dresden, Germany, Vol. II, 252-256.

C93. Öhrström, P., Olsson, J., Albergel, J., Zante, P., Nasri, S., Berndtsson, R., and M. Persson (2001) Nonlinear scaling characteristics of solute transport in a small catchment, Preprints of International Seminar on Small Dams in the Mediterranean World, 28-31 May, Tunis, Tunisia.

C94. Sivakumar, B., Berndtsson, R., and J. Olsson (2000) Searching for chaos in rainfall-runoff dynamics, Proceedings of 12th Congress of Asia Pacific Division of the International Association for Hydraulic Engineering and Research, 13-26 November, Klongluang, Thailand.

C95. Olsson, J., Uvo, C.B., Merabtene, T., Kawamura, A., and K. Jinno (2000) Estimating basin rainfall and runoff from atmospheric circulation: a case study in Kyushu Island, Japan, Western Pacific Geophysics Meeting, 27-30 June, Tokyo, Japan, Eos Trans. AGU, 81(22), H51B-08.

C96. Jinno, K., and J. Olsson (2000) Breakthrough for groundwater research by fully recognizing uncertainty, Western Pacific Geophysics Meeting, 27-30 June, Tokyo, Japan, Eos Trans. AGU, 81(22), H21B-01.

C97. Sivakumar, B., Berndtsson, R., and J. Olsson (2000) Possibility of chaos in rainfall-runoff process, European Geophysical Society XXV General Assembly, 25-29 April, Nice, France, Geophys. Res. Abs.,

2, NP88.

C98. Olsson, J., Uvo, C.B., and K. Jinno (2000) Statistical atmospheric downscaling of extreme rainfall in Southern Japan by a neural network, European Geophysical Society XXV General Assembly, 25-29 April, Nice, France, Geophys. Res. Abs., 2, HS38.

C99. Uvo, C.B., Olsson, J., and K. Jinno (1999) Downscaling of meteorological variables and rainfall forecast for Kyushu Island, Japan, European Geophysical Society XXIV General Assembly, 19-23 April, The Hague, The Netherlands, Geophys. Res. Abs., 1, 292.

C100. Güntner, A., and J. Olsson (1999) Application of a cascade model for rainfall disaggregation in semi-arid tropics, European Geophysical Society XXIV General Assembly, 19-23 April, The Hague, The Netherlands, Geophys. Res. Abs., 1, 291.

C101. Burlando, P., and J. Olsson (1999) Scaling in stochastically generated continuous rainfall time series, European Geophysical Society XXIV General Assembly, 19-23 April, The Hague, The Netherlands, Geophys. Res. Abs., 1, 296.

C102. Olsson, J., and R. Berndtsson (1997) Temporal rainfall disaggregation based on scaling properties, Proceedings of Third International Conference on Rainfall in Urban Areas: Use of Historical Rainfall Series for Hydrological Modelling, 4-7 December, Pontresina, Switzerland.

C103. Olsson, J., and R. Berndtsson (1996) A cascade model for temporal rainfall, Proceedings of International Conference on Water Resources & Environment Research: Towards the 21st Century, 29-31 October, Kyoto, Japan, Vol. I, 309-316.

C104. Olsson, J., and R. Berndtsson (1996) Empirical cascade generator properties in temporal rainfall, European Geophysical Society XXI General Assembly, 6-10 May, The Hague, The Netherlands, Annales Geophys., 14 (Suppl. II), 383.

C105. Olsson, J., Svensson, C., Niemczynowicz, J., and R. Berndtsson (1995) Multifractal analyses of rainfall data, European Geophysical Society XX General Assembly, 3-7 April, Hamburg, Germany, Annales Geophys., 13 (Suppl. II), 554.

C106. Olsson, J. (1994) The existence and applicability of a scale-independent, multifractal relationship in rainfall data, Preprints of International Workshop on Closing the Gap Between Theory and Practice in Urban Rainfall Applications, 30 November-4 December, St. Moritz, Switzerland, 246-258.

C107. Olsson, J., and J. Niemczynowicz (1994) Multifractal relations in rainfall data, Proceedings of Nordic Seminar on Spatial and Temporal Variability and Interdependencies Among Hydrological Processes, 14-16 September, Kirkkonummi, Finland, NHP Report No 36, 110-119.

C108. Olsson, J., Svensson, C., Niemczynowicz, J., and R. Berndtsson (1994) Relation between climatic characteristics and fractal properties of rainfall, European Geophysical Society XIX General Assembly, 25-29 April, Grenoble, France, Annales Geophys., 12 (Suppl.II), 409.

C109. Berndtsson, R., Olsson, J., and A. Bahri (1994) Multiscaling spatial properties of geochemical elements in a clayey soil, presented at European Geophysical Society XIX General Assembly, 25-29 April, Grenoble, France.

C110. Olsson, J., and J. Niemczynowicz (1993) A multifractal analysis of the spatial rainfall distribution associated with different weather types, Preprints of Hydrofractals '93 - Int. Conf. on Fractals in Hydroscience, 12-15 October, Ischia, Italy.

C111. Linderson, M.-L., Olsson, J., and L. Bärring (1993) Distinct daily precipitation patterns and weather types, In: B. Sevruk and M. Lapin (Editors), Precipitation Variability & Climate Change, Proceedings of International Symposium on Precipitation and Evaporation, 20-24 September, Bratislava, Slovakia, Vol. 2, 147-151.

C112. Niemczynowicz, J., and J. Olsson (1993) On scale invariant properties of rainfall, Proceedings of 6:th International Conference on Urban Storm Drainage, 12-17 September, Niagara Falls, Canada, 1-5.

C113. Olsson, J. (1993) Application of fractal analyzing techniques to rainfall time series, European Geophysical Society XVIII General Assembly, 3-7 May, Wiesbaden, Germany, Annales Geophys., 11 (Suppl. II), 305.

C114. Olsson, J. (1992) Multiscaling properties of rainfall, Proceedings of Nordisk Hydrologisk Konf., 4-6 August, Alta, Norway, NHP-rapport No 30, 616-621.

C115. Olsson, J., Niemczynowicz, J., Berndtsson, R., and M. Larson,(1990) Fractal properties of rainfall time series, European Geophysical Society XV General Assembly, 23-27 April, Copenhagen, Denmark, Annales Geophys., special issue, 142.

**OTHER GREY REFERENCES (SEMINARS, POPULAR PRESENTATIONS ETC.)**

O1. Destouni, G., Hoffman, M., Gren, I.-M., Högvik, M., Kjellson, H., Lindblom, L., Lindroth, A., Olsson, J., Rahm, T., Sandborgh, U., Thörn, P., and K. Byman (2021) Climate changes and sustainable water supply, Royal Swedish Academy of Engineering Sciences, Stockholm, Sweden, 57 pp. (in Swedish) .

O2. Olsson, J. (2020) Some reflections on climate knowledge transfer and the impact of climate model resolution, presentation held at the workshop Downscaling climate projections – towards better adaptation strategies in the Nordic countries, Nordic Council of Ministers, 20 November, online.

O3. Olsson, J., J.C.M. Andersson P. Berg, J. Hansryd and B. Arheimer (2019) Operational rainfall monitoring by microwave links: a case study in Gothenburg, Sweden, J. Hydrol. System, 112, 15-17.

O4. Olsson, J. (2017) New cloudburst statistics for Sweden, Slutseminarium for regeringsuppdrag om skyfall, 8 November, Norrköping, Sweden (in Swedish).

O5. Olsson, J. (2017) 4DF: distance-dependent forecasts of hydrological cloudburst consequences, Meteorologisk Metodkonferens 2017, 26-27 October, Norrköping, Sweden (in Swedish).

O6. Olsson, J. (2017) Multi-scale urban flood forecasting (MUFFIN): from local tailored systems to a Pan-European service, poster at Hydrologidagarna, 16-17 March, University of Gothenburg, Sweden.

O7. Eronn, A., and J. Olsson (2016) Mission: cloudburst, invited talk at Research and Innovation for Sustainable Stormwater Management, 30 November-1 December, Stockholm, Sweden (in Swedish).

O8. Olsson., J. (2016) Improved short-term forecasts of cloudbursts using radar and mobile masts, invited talk at Modelling for Climate Adaptation, 9 November, Lund, Sweden (in Swedish).

O9. Olsson, J. (2016) Development of a high-resolution flood forecasting system in Sweden, invited talk at WMO RAVI Hydrological Forum 2016, 20 September, Oslo, Norway.

O10. Olsson, J. (2015) Short-duration precipitation extremes – now and in the future, presentation at Sustainable Storm Water Management, 2-3 June, Stockholm, Sweden (in Swedish).

O11. Tanouchi, H, Olsson, J., and A. Kawamura (2015) HYPE model parameter identification for urban watersheds based on infltration characteristics and geographic information: a preliminary study, presented at Hydrologidagen, 31 March, Chalmers University of Technology, Gothenburg, Sweden (in Swedish).

O12. Olsson, J. (2014) Intense precipitation and hydrological risk: towards high-resolution flood forecasts, invited talk at Forum för Naturkatastrofer, 18-19 November, Stockholm, Sweden (in Swedish).

O13. Olsson, J., and K. Foster (2012) Spring flood forecasting in Sweden: new approaches and multi-modelling, presentation at European Centre for Medium-range Weather Forecasting (ECMWF) seminar, 17 April, Reading, UK.

O14. Strömbäck, L., Olsson, J., and J. Andersson (2012) Hydrological climate services in SUDPLAN, presented at Hydrologidagarna, 14-15 March, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden (in Swedish).

O15. Berndtsson, R., Sivakumar, B., Olsson, J., and P. Graham (2012) Dynamic characteristics of temperature, precipitation and runoff to the Baltic Sea during the past millennium, Vatten, 67, 185-192.

O16. Olsson, J. (2011) Hydrological climate change impacts studies and scientific theory, in K.M. Persson (Ed.), Lars Bengtsson – a water resource, Report nr. 3253, Department of Water Resources Engineering, Lund University, 181 pp.

O17. Olsson., J. (2011) Climate adaptation: analyses of model results and development of tools, invited talk at Urban hydrology and storm water management, 9-10 November, Lund, Sweden (in Swedish).

O18. Foster, K., Olsson, J., and C. B. Uvo (2011) New approaches to spring flood forecasting in Sweden, Vatten, 66, 193-198 (in Swedish).

O19. Willems, P., Arnbjerg-Nielsen, K., Olsson, J., and V.T.V. Nguyen (2011) Impact of climate variability and change on rainfall extremes and urban drainage, Review report by the IWA/IAHR International Working Group on Urban Rainfall (IGUR), 94 pp.

O20. Olsson, J., Dahné, J., German, J., Westergren, B., von Scherling, M., Kjellson, L., Ohls, F., and A. Olsson (2010) Impacts from future changes in climate and population on Stockholm main sewer system, Mistra-SWECIA, Newsletter nr. 2:10.

O21. Olsson, J., and U. Willén (2010) Downscaling extreme RCA3-precipitation for urban hydrological applications, Mistra-SWECIA Working Paper nr. 3, 32 pp.

O22. Olsson, J. (2010) Urban hydrological climate change impact assessment, invited talk at KlimatGIS-dagar, 18-19 May, Stockholm, Sweden (in Swedish).

O23. Olsson, J., and C. B. Uvo (2010) Development of spring flood forecasts, invited talk at HUVA-dagen, 18 March, Stockholm, Sweden (in Swedish).

O24. Olsson, J. (2010) Climate changes in Lake Mälaren, Course on Mälaren Region and Future Climate (Karlstad University), 28 January, Stockholm, Sweden (in Swedish).

O25. Olsson, J. (2010) Spring flood forecasts, Nordic Course on Climate and Hydrology (Lund University), 25-27 January, Norrköping, Sweden.

O26. Olsson, J. (2009) The return of the 10-year rainfall – now and in the future, invited talk at the 2009 Water Fairs, 22-24 September, Stockholm, Sweden (in Swedish).

O27. Olsson, J. (2009) Estimation of local precipitation and IDF-curves from climate model data, invited talk at Water and Climate Changes – an International Perspective, 28 May, Tyréns AB, Stockholm, Sweden.

O28. Smith, B., Lagergren, F., Olsson, J., and M. Rummukainen (2009) Integrated impact studies, Mistra-SWECIA Annual Report 2009, 21-22 (in Swedish).

O29. Olsson, J. (2009) Hydrology and climate, invited talk at Nordic Hydrology, Fundamentals and Market Analysis, 21-23 April, Oslo, Norway.

O30. Olsson, J. (2009) Hydrological forecasting, invited talk at Nordic Hydrology, Fundamentals and Market Analysis, 21-23 April, Montel, Oslo, Norway.

O31. Olsson, J. (2009) Estimation of local precipitation and IDF-curves from climate model data, presented at Hydrologidagarna, 2-3 March, Chalmers University of Technology, Göteborg, Sweden (in Swedish).

O32. Olsson, J., and K. Berggren (2008) How will local rainfall change in the future? Mistra-SWECIA, Newsletter nr. 1, 11-15.

O33. Olsson, J. (2008) Focus on water in Stockholm – more water more frequently, or the opposite?, presented at the Mistra-SWECIA seminar Climate Change and Adaptation in the Stockholm Region, 28 November, Stockholm, Sweden (in Swedish).

O34. Olsson, J. (2005) A test of MoST – a new tool for quality assurance of catchment-based modelling, Vatten, 61, 249-256 (in Swedish).

O35. Graham, L.P., and J. Olsson,(2005) Validation of ELDAS at catchment scale, In: P. Viterbo (Ed.) Proceedings from ECMWF/ELDAS workshop on Land Surface Assimilation, Reading, UK, 8-11 November 2004, 179-186.

O36. Vehviläinen, B., Cauwengerghs, M. K., Cheze, J.-L., Jurczyk, A., Moore, R. J., Olsson, J., Salek, M., and J. Szturc (2004), Evaluation of operational flow forecasting systems that use weather radar, Report to EU Concerted Research Action 717, 15 pp.

O37. Johansson, B., and J. Olsson (2004) Application of radar precipitation for hydrological forecasting, invited talk at HUVA-dagen, 31 March, ELFORSK, Stockholm, Sweden (in Swedish).

O38. Lindström, G., and J. Olsson (2004) Improved hydrological forecasting based on ensemble technique?, invited talk at HUVA-dagen, 31 March, ELFORSK, Stockholm, Sweden (in Swedish).

O39. Olsson, J., Berndtsson, R., and J. Niemczynowicz,(2001) Fractal analysis and modeling of rainfall at department of Water Resources Engineering, Lund University, In: D. Gutknecht, M. Hantel and H.P. Nachtnebel (Eds.), Scaling Problems in Hydrology, National Committee of the International Hydrological Programme, Austrian Academy of Sciences, Vienna, 7-27.

O40. Olsson, J. (1995) Is rainfall a cascade process with fractal properties?, The Swedish Natural Science Research Council (NFR) Annual 1995, Swedish Science Press, 23-32 (in Swedish).

O41. Berndtsson, R., Jinno, K., Kawamura, A., Olsson, J., and S. Xu,(1994) Dynamical systems theory applied to long-term temperature and precipitation time series, In: J. Menon (Ed.), Trends in Hydrology, Counc. Sci. Res. Integr., Trivandrum, India.

O42. Olsson, J. (1993) Rainfall in Scania, presented at Hydrologidagarna, 9-10 March, Lund Institute of Technology, Lund University, Lund, Sweden (in Swedish).

O43. Olsson, J. (1992) Deterministic chaos in precipitation, presented at Hydrologidagarna, 10-11 March, Royal Institute of Technology, Stockholm, Sweden (in Swedish).