

The publications, which have been published by September 2018, and the ones under review, are presented here.

I have published in total 21 peer-reviewed publications **since 2010**, out of which 19 have been in international journals with impact factors, 1 in national journal (Finnish language) and 1 in international conference proceedings. I have been the first author in 8 of these peer-reviewed international journal papers with impact factor. I have also three published theses (Bachelor, Master and PhD degree research dissertations), one professional guide on flood risk mapping, and one publication in professional journal. I have also 2 non-refereed scientific articles and 1 non-refereed conference proceedings publication. I have been interviewed to radio and to 5 different news papers concerning the PhD research (cf. list of publications for further details) and to 5 different news papers concerning the post-doctoral research. Twitter is applied actively for scientific work updates. The h-index is in total 9 in Scopus (263 total citations) and 12 in Google Scholar (472 total citations). Since 2013 the Google Scholar h-index is 12 (410 citations).

A Peer-reviewed scientific articles

Published articles:

- Kämäri M, Huttunen I, Valkama P, Huttunen M, Korppoo M, Tattari S, Lotsari E. 2018. Riverine nitrogen/nitrate losses from snowmelt-affected agricultural and mixed basins: intra- and inter-annual variation captured with high-frequency monitoring and catchment modelling. *Catena*. (Journal article (refereed), original research).
- Lotsari E, Calle M, Benito G, Kaartinen H, Kukko A, Hyypä J, Hyypä H, Alho P. 2018. Topographical change caused by moderate and small floods in a gravel bed ephemeral river - a depth-averaged morphodynamic simulation approach. *Earth Surface Dynamics* 6, 163-185. DOI: 10.5194/esurf-6-163-2018. (Journal article (refereed), original research)
- Kämäri M, Tattari S, Lotsari E, Koskiahio J, Lloyd CEM. 2018. High-frequency monitoring reveals seasonal and event-scale water quality variation in a temporally frozen river. *Journal of Hydrology* 564, 619–639. DOI: 10.1016/j.jhydrol.2018.07.037. (Journal article (refereed), original research)
- Vainikka, J., Hannonen, O., Rinne, E., Nylén, T., Bernelius, V., Lotsari, E., 2017. Maantieteen tila ja tulevaisuus – nuorten tutkijoiden näkökulmia. Keskustelupuheenvuoro. *Terra*. (Journal article (refereed), original research)
- Kämäri M, Alho P, Colpaert A, Lotsari E. 2017. Spatial variation of river ice thickness in a meandering river. *Cold Regions Science and Technology* 137, 17-29. DOI: 10.1016/j.coldregions.2017.01.009. (Journal article (refereed), original research)
- Kasvi E, Laamanen L, Lotsari E, Alho P. 2017. Flow patterns and morphological changes in a sandy meander bend during a flood – spatially and temporally intensive ADCP measurement approach. *Water* 9, 106, 1–20 doi:10.3390/w9020106. (Journal article (refereed), original research)
- Lotsari E, Kasvi E, Kämäri M, Alho P. 2017. The effects of ice-cover on flow characteristics in a subarctic meandering river. *Earth Surface Processes and Landforms* 42, 1195–1212. DOI:10.1002/esp.4089. (Journal article (refereed), original research)
- Kämäri M, Lotsari E, Tattari S, Koskiahio J. 2016. River ice cover influence on water quality based on observations. 23rd IAHR International Symposium on Ice, Ann Arbor, Michigan USA, 31.5.–3.6.2016. (Conference proceedings)
- Lotsari E, Wang Y, Kaartinen H, Jaakkola A, Kukko A, Vaaja M, Hyypä H, Hyypä J, Alho P. 2015. Gravel transport by ice in a subarctic river from accurate laser scanning. *Geomorphology*, 246: 113–122. DOI: 10.1016/j.geomorph.2015.06.009. (Journal article (refereed), original research)
- Calle M, Lotsari E, Kukko A, Alho P, Kaartinen H, Rodriguez-Lloveras X, Benito G. 2015. Morphodynamics of an ephemeral gravel-bed stream combining Mobile Laser Scanner, hydraulic simulations and geomorphological indicators. *Annals of Geomorphology - Zeitschrift für Geomorphologie*, 59:33-57. DOI: http://dx.doi.org/10.1127/zfg_suppl/2015/S-59196. (Journal article (refereed), original research)
- Kämäri M, Alho P, Aaltonen J, Veijalainen N, Huokuna M, Lotsari E. 2015. River ice cover influence on sediment transportation at present and under projected hydro-climatic conditions. *Hydrological Processes*, 29: 4738–4755. DOI: 10.1002/hyp.10522. (Journal article (refereed), original research)
- Lotsari E, Thorndycraft V, Alho P. 2015. Prospects and challenges of simulating river channel response to future climate change. *Progress in Physical Geography* 39: 483–513. DOI: 10.1177/0309133315578944. (Journal article (refereed), original research)
- Kasvi E, Alho P, Lotsari E, Wang Y, Kukko A, Hyypä H, Hyypä J. 2014. Two-dimensional and three-dimensional computational models in hydrodynamic and morphodynamic reconstructions of a river bend: sensitivity and

- functionality. *Hydrological Processes* 29: 1604–1629. DOI: 10.1002/hyp.10277. (Journal article (refereed), original research)
- Lotsari E, Vaaja M, Flener C, Kaartinen H, Kukko A, Kasvi E, Hyyppä H, Hyyppä J, Alho P. 2014. Annual bank and point bar morphodynamics of a meandering river determined by high-accuracy multitemporal laser scanning and flow data. *Water Resources Research* 50: 5532–5559. DOI: 10.1002/2013WR014106. (Journal article (refereed), original research)
 - Lotsari E, Wainwright D, Corner GD, Alho P, Käyhkö J. 2014. Surveyed and modelled one-year morphodynamics in the braided lower Tana River. *Hydrological Processes* 28: 2685–2716. DOI: 10.1002/hyp.9750. (Journal article (refereed), original research)
 - Lotsari E, Aaltonen J, Veijalainen N, Alho P, Käyhkö J. 2014. Future erosion and sedimentation potential of cohesive sediments in a coastal river reach of SW Finland. *Hydrological Processes* 28: 6016–6037. DOI: 10.1002/hyp.10080. (Journal article (refereed), original research)
 - Saarinen N, Vastaranta M, Vaaja M, Lotsari E, Jaakkola A, Kukko A, Kaartinen H, Holopainen M, Hyyppä H, Alho P. 2013. Area-based approach for mapping and monitoring of Riverine Vegetation using Mobile Laser Scanning. *Remote Sensing* 5: 5285–5303. DOI:10.3390/rs5105285. (Journal article (refereed), original research)
 - Flener C, Lotsari E, Alho P, Käyhkö J. 2012. Comparison of empirical and theoretical remote sensing based bathymetry models in river environments. *River Research and Applications* 28: 118–133. DOI: 10.1002/rra.1441. (Journal article (refereed), original research)
 - Koivumäki L, Alho P, Lotsari E, Käyhkö J, Saari A, Hyyppä H. 2010. Uncertainties in flood risk mapping: an insight into estimating building damages. *Journal of Flood Risk Management* 3: 166 – 183. (Journal article (refereed), original research)
 - Veijalainen N, Lotsari E, Alho P, Vehviläinen B, Käyhkö J. 2010: National scale assessment of climate change impacts on flooding in Finland. *Journal of Hydrology* 391: 333–350. (Journal article (refereed), original research)
 - Lotsari E, Veijalainen N, Alho P, Käyhkö J, 2010. Impact of climate change on future discharges and flow characteristics at Tana River, Sub-Arctic northern Fennoscandia. *Geografiska Annaler* 92A: 263–284. (Journal article (refereed), original research)

Also two manuscripts are under peer-review at the moment (September 2018) for international scientific journals:

- Lotsari E, Tarsa T, Kämäri M, Alho P, Kasvi E. Spatial variation of flow characteristics in a subarctic meandering river in ice-covered and open-channel conditions: 2D hydrodynamic modelling approach. *Earth Surface Processes and Landforms*. (Journal article (refereed), original research) (*under review 2018, revision submitted*).
- Kasvi E, Salmela J, Lotsari E, Kumpula T, Lane S. Comparison of remote sensing based bathymetric modelling approaches in shallow and clear water river environment. *Geomorphology* (*under review 2018*).

B Non-refereed scientific articles

Non-refereed journal articles:

- Inkeroinen P, Lotsari E, Tanskanen M. 2016. Äärimmäisyyksien maantiedettä Joensuussa. *Terra* 128, 4: 239 – 240.
- Muukkonen P, Lotsari E. 2016. Geoinformatiikan FIUGINET-verkostolle uudet vetäjät. *Terra* 128, 1: 40-41.

Non-refereed conference proceedings:

- Huokuna M, Sane M, Alho P, Käyhkö J, Lotsari E, Lehtiö L. 2008. A GIS-based approach for flood risk mapping in Finland. Working Group F, Thematic Workshop on Flood Mapping, Dublin, 17–19 September, 2008. 8 p.

Presentations/abstracts in the international and national conferences and seminars (O=oral presentation, P=poster presentation):

- Dietze M, Polvi L, Lotsari E, Lind L, Turowski J. 2018. Peeping below the ice. Seismic probing of water flow and sediment flux in a frozen Scandinavia river. American Geophysical Union (AGU), Fall meeting, Washington D.C., USA, 10-14.12.2018. (P)
- Lotsari E, Kasvi E. 2018. Seasonal river dynamics in changing cold environments. XXX Nordic Hydrological Conference, Bergen, Norway, 13-15.8.2018.
- Lotsari E, Kasvi E, Hackney C, Salmela J, Kemp J, Alho, P. Temporal variation of river bank dynamics and their driving processes during open-channel flow period of a sub-arctic meandering river. Geophysical Research Abstracts, Vol. 20, EGU2018-1822, 2018, European Geosciences Union (EGU) General Assembly 2018, Vienna, Austria, 8.-13.4.2018. (P)

- Lotsari, E., House, K., Alho, P., Baker, V. 2017. Comparison of long-term evolutionary trajectories of two ephemeral channels after channel-forming extraordinary floods. Geophysical Research Abstracts Vol. 19, EGU2017-8952, European Geosciences Union (EGU) General Assembly 2017, Vienna, Austria, 23.-28.4.2017. (O)
- James J, Brasington J, Cook S, Cox S, Lotsari E, McColl S, Lehane N, Williams R, Vericat D. 2017. Quantifying river response to landsliding: experiments in DEM differencing using wide-area, structure-from-motion terrain models. Geophysical Research Abstracts Vol. 19, EGU2017-10158, European Geosciences Union (EGU) General Assembly 2017, Vienna, Austria, 23.-28.4.2017. (O)
- Lotsari E. 2016. Changing seasonal river dynamics in sensitive cold environments – an integrated process approach. Maantieteen päivät, Joensuu, 27.-28.10.2016. (O)
- Brasington J, James J, Cook S, Cox S, Lotsari E, McColl S, Lehane N, Williams R. 2016. Catchment-Scale Terrain Modelling with Structure-from-Motion Photogrammetry: a replacement for airborne lidar? European Geosciences Union (EGU) General Assembly 2016, Vienna, Austria, 17.-22.4.2016. (O)
- Lotsari E. 2016. The effects of annual and extreme fluvial processes on river dynamics in hydrologically different regions. Presentation in Seminar Series. Department of Geography, University of Southampton, Southampton, UK. 16.3.2016. (O)
- Lotsari E. 2016. The effects of ice-cover on flow characteristics in a subarctic meandering river. Queen Mary University of London, London, UK. 8.3.2016. (O)
- Lotsari E, Calle M, Benito G, Kaartinen H, Kukko A, Hyyppä J, Hyyppä H, Alho P. 2015. The evolution of an ephemeral river during the rising and receding phases of medium and low magnitude discharge events. AGU (American Geophysical Union) Fall Meeting, San Francisco, USA, 14.-18.12.2015. (P)
- Lotsari E. 2015. Present and future fluvial processes in Finland: case studies from different river environments. Presentation in Seminar Series. Australian Rivers Institute, Griffith University, Brisbane, Australia 27.3.2015.(O)
- Lotsari E, Wang Y, Kaartinen H, Jaakkola A, Kukko A, Vaaja M, Alho P. 2014. River channel morphodynamics caused by ice in a sub-arctic natural state river – case study based on laser scanning. Maantieteen päivät, Oulu, Finland, 30-31.10.2014. (O)
- Lotsari E, Alho P, Aaltonen J, Veijalainen N, Huokuna M, Kämäri M. 2014. Influence of river ice on water levels and erosion potential of sediments now and in the projected hydro-climatic conditions. The XXVIII Nordic Hydrological Conference, 11–13.8.2014. Royal Institute of Technology, Stockholm, Sweden. (O)
- Lotsari E, Wang Y, Kaartinen H, Kukko A, Jaakkola A, Vaaja M, Hyyppä H, Hyyppä J, Alho P. 2014. River channel morphodynamics caused by ice in a sub-arctic natural state stony river – a case study based on laser scanning data. The XXVIII Nordic Hydrological Conference, 11–13.8.2014. Royal Institute of Technology, Stockholm, Sweden. (O)
- Lotsari E, Thorndycraft V, Alho P. 2014. Prospects and challenges in simulating future changes in natural river channels. Hydrological extreme events in historic and prehistoric times (HEX)- conference, Bonn, Germany, 9. – 15.6.2014. (O)
- Lotsari E. 2013. Climate change impacts on discharges, flooding and fluvial erosion-sedimentation potential in a coastal river reach of SW Finland. Nordic Geographers Meeting (NGM13), Reykjavik, Iceland. (O)
- Lotsari E. 2012. Jokiprosessit ja niiden voimakkuudet tulevaisuudessa: lähestymistapana kenttähavainnointi ja mallintaminen. Maantieteen päivät, Helsinki, Finland, 26.–27.10.2012. (O)
- Lotsari E. 2012. Fluvial processes and their future magnitudes: combined field observation and simulation approaches. Nordic Water 2012, XXVII Nordic Hydrological Conference, Oulu, Finland, 13.–15.8.2012. (O)
- Lotsari E. 2012. Fluvial processes and their future changes in Finland: hydro- and morphodynamic simulation approaches. AAG (Association of American Geographers) Annual Meeting 2012, 24.-28.2.2012 New York, USA. (O)
- Lotsari E. 2011. Ilmastonmuutoksen vaikutukset jokisedimenttien kuljetuspotentiaaliin Kokemäenjoen alajuoksulla. Maantieteen päivät 27.-28.10.2011, Turku, Finland. (O)
- Lotsari E., Veijalainen N, Aaltonen J, Alho P, Käyhkö J, Vehviläinen B. 2011. Climate change impacts on flooding and river morphology – case studies in Finland. Nordic Geographers Meeting 24.-27.5.2011, Roskilde, Denmark. (O)
- Lotsari E, Wainwright D, Corner GD, Alho P, Käyhkö J. 2011. Dynamic relationship between discharge and river morphology in the braided sub-arctic lower Tana River: 2D-morphology modelling as a tool for river channel change detection. European geosciences union (EGU), general assembly 2011, Vienna, Austria, 3.-8.4.2011. (O)

- Lotsari E. 2010: Dynamic relationship between discharge and river morphology in the braided sub-arctic lower Tana River: 2D-morphology modelling as a tool for river channel change detection. Maantieteen päivät 29.10.2010, Joensuu, Finland. (O)
- Veijalainen N, Lotsari E., Vehviläinen B, Alho P, Käyhkö J. 2010: National scale assessment of climate change impacts on flooding in Finland. International Polar Year (IPY), Oslo Science Conference 7.-12.6.2010 Oslo, Norway. (O)
- Veijalainen N, Lotsari E., Vehviläinen B, Alho P, Käyhkö J. 2010: Changes in floods in Finland due to climate change: General assessment on national scale. 6th Alexander von Humboldt International Conference–Climate Change, Natural Hazards, and Societies, EGU Topical Conference Series 14-19.3.2010 Merida, Mexico. (O)
- Veijalainen N, Lotsari E., Vehviläinen B, Alho P, Käyhkö J. 2009. Changes in floods in Finland due to climate change: General assessment on national scale. Maantieteen päivät 5.-7.11.2009, Oulu, Finland. (O)
- Alho P, Flener C, Käyhkö J, Lotsari E., Mäkinen J, Veijalainen N, 2009: Hydraulic modelling as a tool for estimating sediment behaviour in fluvial systems. SEDIBUD workshop, 12.-16.10.2009 Kingston, Canada. (O)
- Lotsari E., Veijalainen N, Alho P, Käyhkö J. 2009: The effect of climate change on future discharges and flow characteristics in Sub-Arctic Tana River. Nordic Geographers Meeting 2009 (NGM09), Turku, Finland, 8.-11.6.2009. (O)
- Lotsari E., Veijalainen N, Alho P, Käyhkö J. 2009: The effect of climate change on future discharges and flow characteristics on a sub-arctic river in Northern Norway. European geosciences union (EGU), general assembly 2009, Vienna, Austria, 19.-24.4.2009. (P)
- Lotsari E., Veijalainen N, Alho P, Käyhkö J, Harilainen L. 2008: Dynamics of future floods under changing climate in a Subarctic river – a case study at Tana River, Finland/Norway. Hydrology in the Arctic, 16.-18.6.2008, Longyearbyen. (O)
- Lotsari E., Alho P, Käyhkö J. 2008: The role of datasets in assessing fluvial-geomorphic dynamics of a subarctic catchment under changing climatic conditions – case studies at Tana river and Pulmankijoki sub-watershed, Northern Finland and Norway. European geosciences union (EGU), general assembly 2008, Vienna, Austria, 13.-18.4.2008. (P)
- Lotsari E. 2007: Digitaalisten aineistojen laadun ja resoluution merkitys valuma-alue- ja tulvatutkimuksissa. Maantieteen päivät 9.-10.11.2007, Vaasa, Finland. (O)

C Scientific books (monographs)

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D Publications intended for professional communities

- Kämäri M, Alho P, Veijalainen N, Aaltonen J, Huokuna M, Lotsari E. 2015. Hupeneva jää ja vesisateet lisäävät jokien talvista sedimenttikeruuta. Vesitalous 6/2015 (published on 17.11.2015). (Article in a trade journal)
- Alho P, Sane M, Huokuna M, Käyhkö J, Lotsari E, Lehtiö L. 2008. Tulvariskien kartoittaminen [Flood risk mapping]. Ympäristöhallinnon ohjeita 2. Luonnonvarat. Finnish Environment Institute and University of Turku. Helsinki. 99 p. (Textbook, professional manual or guide, dictionary)

E Publications intended for the general public, linked to the applicant's research

- Länsi-Suomi, 4.3.2017. Mitä Kokemäenjoessa tapahtuu jääkannen alla? / Joki ei nuku edes jään alla. Front page and pages 2-3. Writer: Jami Jokinen. Interviewed experts during field measurements: Eliisa Lotsari, Maria Kämäri and Elina Kasvi (Popularised article, newspaper article).
- Lotsari E, Eskelinen S. 2017. Jääkansi muuttaa jokien virtausta. Itä-Suomen yliopistolehti 1 / 2017, p. 5. https://issuu.com/uniuef/docs/uef_saima_1-2017_a4_17_01_12_net (Popularised article, newspaper article).
- Itä-Suomen yliopiston uutiset. Joulukuu 2016. Jääkansi muuttaa jokien virtausta – eroja voidaan mitata aiempaa tarkemmin. <https://www.uef.fi/-/jaakansi-muuttaa-jokien-virtausta-eroja-voidaan-mitata-aiempaa-tarkemmin> (Popularised article, newspaper article). Writer: Eliisa Lotsari and Sari Eskelinen.
- Itä-Suomen yliopiston uutiset / Yhteiskuntatieteiden ja kauppatieteiden tiedekunnan tutkimussivut. Maaliskuu 2014. Jokitutkimuksesta vastauksia tulvien vaikutuksiin. Journalist/interviewer: Sari Eskelinen. <http://www.uef.fi/fi/uef/-/jokitutkimuksesta-vastauksia-tulvien-vaikutuksiin> (Popularised article, newspaper article)
- Savon sanomat, 19.3.2014. Vahvaa tiedettä nyt ja tulevaisuudessa. Journalists: many writers, including Lotsari Eliisa. (Popularised article, newspaper article)
- Mäntsälä-lehti 20.7.2012. p.17: Eliisa Lotsari väitteli tohtoriksi maantieteessä. Journalist: Isak Vento. (Popularised article, newspaper article)

- Orimattilan Sanomat 19.7.2012. p. 8: Eliisa Lotsarin väitökirja ilmastonmuutoksesta: Porvoonjoen virtaamahuiput siirtyvät vuosisadan lopulla syksyyn ja talveen. Journalist: Teemu Leppänen. (Popularised article, newspaper article)
- Uusimaa 18.7.2012. p.10: Eliisa Lotsari väitteli tohtoriksi maantieteessä. Journalist: Isak Vento. (Popularised article, newspaper article)
- Turun Sanomat 12.7.2012. Kotimaa, p. 7: Kevättulvien merkitys pienenee tulevaisuudessa. Journalist: Katja Kaartinen. (Popularised article, newspaper article)
- Kansan Uutiset, Verkkolehti 11.7.2012 15.15 (päivitetty 12.7.2012 09.53). Uutiset/Kotimaa: Kevään tulvahuiput laantuvat. Journalist: Pekka Helminen. (Popularised article, newspaper article)

F Public artistic and design activities

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G Theses

- Lotsari E. 2012. Fluvial Processes and Their Future Magnitudes: Combined Field Observation and Simulation Approaches. Annales Universitatis Turkuensis AII 270. Uniprint – Turku, Finland. 199 p. (Doctoral dissertation article)
- Lotsari E. 2007. Pulmankijoen valuma-alueen hydrologia – osavaluma-aluekohtainen tutkimus [Hydrological investigation of Pulmankijoki drainage basin – study based on sub-watersheds]. Department of Geography, University of Turku. 138 p. (Master thesis)
- Lotsari E. 2003. Itämeren öljynkuljetukset ja ympäristöriskit. In: Kalliola, R. (ed.): Luonnonvarojen maantiedettä. Seminaariartikkelikokoelma. Maantieteen harjoitusmonisteita 19: 132–155. Department of Geography, University of Turku. (Bachelor thesis)

H Patents and invention disclosures

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I Audiovisual material, ICT software

- Turun Radio, YLE. 11.7.2012. Haastattelu väitöskirjatutkimukseeni liittyen aamuohjelmassa klo 9:30-10:00 am. Interviewer/radio host: Jouni Koutonen. ([Audiovisual material](#))
- Satakunnan Radio, YLE. 11.7.2012. Haastattelu väitöskirjatutkimukseeni liittyen aamuohjelmassa klo 9:30-10:00 am. Interviewer/radio host:: Jouni Koutonen. ([Audiovisual material](#))