

Soil and Environmental Physics: refereed journal publications

2019

Maharjan, G., Hoffmann, H., Webber, H., Srivastava, A., Weihermüller, L., **Villa, A., Coucheney, E., Lewan, E.**, Trombi, G., Moriondo, M., Bindi, M., Grosz, B., Dechow, R., Kuhnert, M., Doro, L., Kersebaum, K-C., Stella, T., Specka, X., Nendel, C., Constantin, J., Raynal, H., Ewert, F., Gaiser, T. 2018. Effects of input data aggregation on simulated crop yields in temperate and Mediterranean climates. *European Journal of Agronomy*, 103, 32-46. <https://doi.org/10.1016/j.eja.2018.11.001>.

2018

Coucheney E., Eckersten H., Hoffmann H., Jansson P.-E., Gaiser T., Ewert F., **Lewan E.** 2018. Key functional soil types explain data aggregation effects on simulated yield, soil carbon, drainage and nitrogen leaching at a regional scale. *Geoderma*, 318, 167-181. <https://doi.org/10.1016/j.geoderma.2017.11.025>

Hansson, L.J., **Koestel, J.**, Ring, E., Gärdenäs, A.I. 2017. Impacts of off-road traffic on soil physical properties of forest clear-cuts: X-ray and laboratory analysis. *Scandinavian Journal of Forest Research*, 1-12. doi: 10.1080/02827581.2017.1339121.

Hellner, Q., **Koestel, J.**, Ulén, B., **Larsbo, M.** 2018. Effects of tillage and liming on macropore networks derived from X-ray tomography images of a silty clay soil. *Soil Use and Management*, 34, 197–205.

Holten R., Norheim Bøe, F., Almvik, M., Katuwal, S., Stenrød, M., **Larsbo, M., Jarvis, N.**, Eklo, O-M. 2019. The effect of freezing and thawing on water flow and MCPA leaching in partially frozen soil. *J. Cont. Hydrol.*, in press

Jarvis, N. 2018. Meta-analysis of pesticide sorption in subsoil. *Environmental Toxicology & Chemistry*, 37, 755-761.

Koestel, J. 2018. SoilJ: An ImageJ Plugin for the Semiautomatic Processing of Three-Dimensional X-ray Images of Soils. *Vadose Zone J.* 17:170062. doi:10.2136/vzj2017.03.0062

Koestel, J., Dathe, A., Skaggs, T., Klakegg, O., Ahmad, M.A., Babko, M., Giménez, D., Farkas, S., Nemes, A., **Jarvis, N.** 2018. Estimating the permeability of naturally structured soil from percolation theory and pore space characteristics imaged by X-ray. *Water Resources Research*, 54, doi.org/10.1029/2018WR023609.

Kravchenko A.N., Guber A.K., Quigley M.Y., **Koestel J.**, Gandhi H., Ostrom N.E. 2018. X-ray computed tomography to predict soil N₂O production via bacterial denitrification and N₂O emission in contrasting bioenergy cropping systems. *GCB Bioenergy*, 10, 894–909. <https://doi.org/10.1111/gcbb.12552>

Löv, Å., Cornelis, G., **Larsbo, M.**, Persson, I., Sjöstedt, C., Gustafsson, J. P., Boye, K. Kleja, D. B. 2018. Particle- and colloid-facilitated Pb transport in four historically contaminated soils - Speciation and effect of irrigation intensity. *Applied Geochemistry*, 96, 327–338.

Sandin, M., Piikki, K., **Jarvis, N.**, **Larsbo, M.**, Bishop, K., Kreuger, J. 2018. Spatial and temporal patterns of pesticide concentrations in streamflow, drainage and runoff in a small Swedish agricultural catchment. *Science of the Total Environment*, 610, 623-634.

Sandin, M., **Jarvis, N.**, **Larsbo, M.** 2018. Consolidation and surface sealing of nine harrowed Swedish soils. *Soil and Tillage Research*, 181, 82-92.

Ulén, B., **Larsbo, M., Koestel, J.**, Hellner, Q., Blomberg, M., Geranmayeh, P. 2018. Assessing strategies to mitigate phosphorus leaching from drained clay soils, *Ambio*, 47, 114–123.

Ulén, B., **Lewan, E.**, Kyllmar, K., Blomberg, M., Andersson, S. 2018. Impact of the North Atalantic Oscillation on Swedish winter climate and nutrient leaching. *Journal of Environmental Quality*, doi:10.2134/jeq2018.06.0237.

Wallor, E., Kersebaum, K-C., Ventrella, D., Bindi, M., Cammarano, D., **Coucheney, E.**, Gaiser, T., Garofalo, P., Giglio, L., Giola, P., Hoffmann, M., Iocola, I., Lana M., **Lewan, E.**, Maharjan, G., Moriondo, M., Mula, L., Nendel, C., Pohankova E., Roggero, P., Trnka, M., Trombi, G. 2018. The response of process-based agro-ecosystem models to within-field variability in site conditions. *Field Crops Research*, 228, 1-19. <https://doi.org/10.1016/j.fcr.2018.08.021>.

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Ghanbarian, B., Hunt, A.G., Skaggs, T.H., **Jarvis, N.** 2017. Upscaling soil saturated hydraulic conductivity from pore throat characteristics. *Advances in Water Resources*, 104, 105-113.

Grosz, B., Dechow, R., Hoffmann, H., Zhao, G., Constantin, J., Raynal, H., Wallach, D., **Coucheney, E., Lewan, E.**, Eckersten, H., Specka, X., Kersebaum, K.-C., Nendel, C., Kuhnert, M., Yeluripati, J., Kiese, R., Haas, E., Klatt, S., Teixeira, E., Bindi, M., Trombi, G., Moriondo, M., Doro, L., Roggero, P.P., Zhao, Z., Wang, E., Vanuytrecht, E., Tao, F., Rötter, R., Cammarano, D., Asseng, S., Weihermüller, L., Siebert, S., Gaiser, T., Ewert, F., 2017. The implication of input data aggregation on up-scaling soil organic carbon changes. *Environmental Modelling and Software*, 96, 361-377. <http://dx.doi.org/10.1016/j.envsoft.2017.06.046>

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Keck, J., Strobel, B.W., Gustafsson, J-P., **Koestel, J.** 2017. Quantitative imaging of the 3-D distribution of cation adsorption sites in undisturbed soil. *Soil*, 3, 177-189.

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Larsbo, M., Koestel, J., Kätterer, T., Jarvis, N.J. 2016. Preferential transport in macropores is reduced by soil organic carbon. *Vadose Zone Journal*, doi:10.2136/vzj2016.03.0021.

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Mossadeghi-Björklund, M., Arvidsson, J., Keller, T., **Koestel, J.**, Lamandé, M., **Larsbo, M., Jarvis, N.** 2016. Effects of subsoil compaction on hydraulic properties and preferential flow in a Swedish clay soil. *Soil and Tillage Research*, 156, 91-98.

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