

Air exchange of the hydraulic system with water-drag-driven dynamics

Laanearu, Janek Proceedings 39th IAHR World Congress 2022 / p. 1797-1803 <https://doi.org/10.3850/IAHR-39WC2521711920222003>

Air pocket dynamics under bridging of stratified flow during rapid filling of a horizontal pipe

Kaur, Katrin; Laanearu, Janek; Annus, Ivar Journal of hydraulic engineering 2023 / art. 04022030, 11 p. : ill
[https://doi.org/10.1061/\(ASCE\)HY.1943-7900.0002021](https://doi.org/10.1061/(ASCE)HY.1943-7900.0002021) Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Analysis and improvement of a perturbation solution for hydraulic flow in a rotating parabolic channel

Laanearu, Janek; Lundberg, Peter Zeitschrift für angewandte Mathematik und Mechanik 2005 / 7, p. 490-498 : ill
https://www.academia.edu/58024357/Analysis_and_improvement_of_a_perturbation_solution_for_hydraulic_flow_in_a_rotating_parabolic_channel

Analyzing the emptying process of a large-scale pipeline with three-dimensional CFD simulations

Chen, Xifeng; Hou, Qingzhi; Tijsseling, Arris S.; Laanearu, Janek; Khu, Soon Thiam Journal of hydraulic engineering 2025 / art. 04025036 <https://doi.org/10.1061/JHEND8.HYENG-14153>

Barotropic effects on surface layer on water exchange through horizontal channels with quadratic-shape cross-sections

Laanearu, Janek; Davies, Peter A. Proceedings of Sixth International Symposium on Stratified Flows : Perth, 11-14.12.2006 2006 / p. 336-341

BIAS : a regional management of underwater sound in the Baltic Sea

Sigray, Peter; Andersson, Mathias; Pajala, Jukka; Laanearu, Janek; Klauson, Aleksander The effects of noise on aquatic life II 2016 / p. 1015-1023 : ill https://doi.org/10.1007/978-1-4939-2981-8_126 Article collection metrics at Scopus Article at Scopus Article collection metrics at WOS Article at WOS

Blockage of saline intrusions in restricted, two-layer exchange flows across a submerged sill obstruction

Cuthbertson, Alan; Laanearu, Janek; Carr, Magda; Sommeria, Joel; Viboud, Samuel Environmental fluid mechanics 2018 / p. 27-57 : ill <https://doi.org/10.1007/s10652-017-9523-2> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Buoyancy-driven two-layer exchange flows across a slowly submerging barrier

Cuthbertson, Alan; Laanearu, Janek; Davies, Peter A. Environmental fluid mechanics 2006 / p. 133-151 : ill
https://www.researchgate.net/publication/227110315_Buoyancy-Driven_Two-Layer_Exchange_Flows_Across_a_Slowly_Submerging_Barrier

Dense gravity currents in rotating, up-sloping and converging channel

Cuthbertson, Alan; Davies, Peter; Laanearu, Janek; Wahlin, Anna Proceedings of VII International Symposium on Stratified Flows (ISSF2011), 22nd-26th of August, Rome, Italy 2011
https://www.researchgate.net/publication/283792789_Dense_Gravity_Currents_in_a_Rotating_Up-sloping_Converging_Channel

Dense-water overflow in a converging and up-sloping channel

Laanearu, Janek; Cuthbertson, Alan; Davies, Peter Proceedings of VII International Symposium on Stratified Flows (ISSF2011), 22nd-26th of August, Rome, Italy 2011 https://www.researchgate.net/publication/283792680_Dense-Water_Overflow_in_A_Converging_and_Up-sloping_Channel

Discussion of "Rigid Water Column Model for Simulating the Emptying Process in a Pipeline Using Pressurized Air" by

Oscar E. Coronado-Hernández, Vicente S. Fuertes-Miquel, Pedro L. Iglesias-Rey, and Francisco J. Martínez-Solano
Hou, Qingzhi; Li, Shunda; Tijsseling, Arris S.; Laanearu, Janek Journal of hydraulic engineering 2020 / art. 07020001, 6 p. : ill
[https://doi.org/10.1061/\(ASCE\)HY.1943-7900.0001682](https://doi.org/10.1061/(ASCE)HY.1943-7900.0001682) Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Dynamic processes of air-water flows in urban water systems = Õhu ja vee koosvoolumise dünaamilised protsessid linna veesüsteemides

Kaur, Katrin 2022 <https://doi.org/10.23658/taltech.68/2022> <https://digikogu.taltech.ee/et/Item/0a655a67-74aa-457e-8640-e7b3ab212695>
https://www.ester.ee/record=b5527832*est

Dynamics of dense gravity currents and mixing in an up-sloping and converging vee-shaped channel

Laanearu, Janek; Cuthbertson, Alan; Davies, Peter A. Journal of hydraulic research 2014 / p. 67-80 : ill
<https://doi.org/10.1080/00221686.2013.841779> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Effects of bottom-height changes on maximal exchange-flow estimates in channels with quadratic shape cross sections

Laanearu, Janek; Davies, Peter A.; Koppel, Tiit Proceedings of 32nd Congress of IAHR : Venice, Italy, July 1-6, 2007 2007 / ? p
<https://www.iahr.org/library/infor?pid=15300>

Emptying of large-scale pipeline by pressurized air

Laanearu, Janek; Annus, Ivar; Koppel, Tiit; Bergant, Anton; Vučkovic, Sašo; Hou, Qingzhi; Tijsseling, Arris S.; Anderson, Alexander; Westende, Jos M.C.van't Journal of hydraulic engineering 2012 / p. 1090-1100 : ill
https://www.win.tue.nl/~atijssel/pdf_files/Laanearu-et-al_2012.pdf

- Experimental and analytical investigation of dense gravity currents in a rotating, up-sloping and converging channel**
Cuthbertson, Alan; **Laanearu, Janek**; Wahlin, Anna K.; Davies, Peter A. Dynamics of atmospheres and oceans 2011 / p. 386-409 : ill <https://www.sciencedirect.com/science/article/pii/S0377026511000467>
- Experimental and analytical modelling study of water-front dynamics of two-phase unsteady flows in a large-scale pressurized pipeline**
Laanearu, Janek; Hou, Qingzhi; Tijsseling, Arris S. Papers presented at 12th International Conference on Pressure Surges : Dublin, Ireland : 18-20 November 2015 2015 / p. 625-637 : ill
- Experimental and analytical study of the air-water interface kinematics during filling and emptying of a horizontal pipeline**
Laanearu, Janek; Hou, Qingzhi; Tijsseling, Arris S. 12th International Conference on Pressure Surges : Dublin, Ireland, 18-20 November 2015 2015 / p. 625-637 : ill
- Experimental and numerical modelling of stratified exchange flows and blocking over a submerged sill**
Cuthbertson, Alan; Berntsen, Jarle; **Laanearu, Janek**; Asplin, Magdali 6th IAHR Europe Congress, Warsaw, Poland : abstract book 2021 / p. 237-238 : ill <https://iahr2020.pl/wp-content/uploads/2021/02/Book-of-Abstracts-15-02-2021.pdf>
- Experimental data on filling and emptying of a large-scale pipeline**
Chen, Xifeng; Hou, Qingzhi; **Laanearu, Janek**; Tijsseling, Arris S. Scientific data 2024 / art. 603 <https://doi.org/10.1038/s41597-024-03441-7> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)
- Experimental investigation on rapid filling of a large-scale pipeline**
Hou, Qingzhi; Tijsseling, Arris S.; **Laanearu, Janek**; Annus, Ivar; Koppel, Tiit Journal of hydraulic engineering 2014 / art. 04014053, p. 1-14 : ill [https://doi.org/10.1061/\(ASCE\)HY.1943-7900.0000914](https://doi.org/10.1061/(ASCE)HY.1943-7900.0000914) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)
- Experimental investigation on rapid filling of a large-scale pipeline**
Hou, Qingzhi; Tijsseling, Arris S.; **Laanearu, Janek**; Annus, Ivar; Koppel, Tiit 2013
- Experimental measurements of momentum changes at hydraulic jump in a transparent horizontal pipe**
Kaur, Katrin; Annus, Ivar; **Laanearu, Janek** Papers presented at 13th International Conference on Pressure Surges, Bordeaux, France, 14th-16th November, 2018 ; volume 2 2018 / p. 925-935 : ill
- Experimental studies of internal and near-bed dynamics of restricted exchange flows [Electronic resource]**
Carr, Magda; Cuthbertson, Alan; **Laanearu, Janek**; Sommeria, Joel; Kean, Jonathan; **Lilover, Madis-Jaak**; **Kollo, Monika**; Berntsen, Jarle; Thiem, Øyvind; Viboud, Samuel E-proceedings of the 36th IAHR World Congress : 28 June - 3 July, 2015, The Hague, the Netherlands 2015 / p. 1-4 : ill
- Experimental study of eddy viscosity for breaking waves on sloping bottom and comparisons with empirical and numerical predictions**
Oldekop, Nelly; Liiv, Toomas; **Laanearu, Janek** Proceedings of the Estonian Academy of Sciences 2019 / p. 299-312 : ill <https://doi.org/10.3176/proc.2019.3.07> http://www.kirj.ee/public/proceedings_pdf/2019/issue_3/proc-2019-3-299-312.pdf [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)
- Experimental study of filling and emptying of a large-scale pipeline**
Hou, Qingzhi; Tijsseling, Arris S.; **Laanearu, Janek**; Annus, Ivar; Koppel, Tiit; Bergant, Anton; Vučković, S.; Gale, Janez; Anderson, A.; Westende, Jos M.C.van't; Pandula, Zoltan; Ruprecht, A. 2012 https://www.researchgate.net/publication/254810149_Experimental_study_of_filling_and_emptying_of_a_large-scale_pipeline
- Experimental study of uni- and bi-directional exchange flows in a large scale rotating trapezoidal channel**
De Falco, Maria Chiara; Adduce, Claudia; Cuthbertson, Alan; Negretti, Maria Eletta; **Laanearu, Janek**; Malcangio, Daniela; Sommeria, Joel Physics of Fluids 2021 / art. 036602, 17 p. : ill <https://doi.org/10.1063/5.0039251> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)
- Experimental study on dynamical blocking conditions of net exchange flows**
Laanearu, Janek; Cuthbertson, Alan; Carr, Magda; Sommeria, Joel; **Lilover, Madis-Jaak**; Viboud, Samuel; Berntsen, Jarle VIIIth International Symposium on Stratified Flows : San Diego 2016 2016 / p. 1-8 : ill <http://escholarship.org/uc/item/48s7m6h9>
- Flow dynamics in a pipe with a sudden change in diameter**
Annus, Ivar; **Kaur, Katrin**; **Vassiljev, Anatoli**; **Laanearu, Janek**; Šanin, Märt 14th International CCWI Conference : 7-9 November 2016 2016 / [8] p. : ill
- Gravity currents in rotating, topographically-controlled channels**
Cuthbertson, Alan; Davies, Peter A.; Chafik, Leon; Lundberg, Peter; **Laanearu, Janek**; Wahlin, Anna Proceedings of 3rd International Symposium on Shallow Flows (ISSF) : June 4-6, 2012, Iowa City, IA, USA 2012 / p. 146-155 : ill

https://www.researchgate.net/publication/283791457_Gravity_Currents_in_Rotating_Topographically-controlled_Channels

Gravity currents in rotating, wedge-shaped, adverse channels

Cuthbertson, Alan; Lundberg, Peter; Davies, Peter A.; **Laanearu, Janek** Environmental fluid mechanics 2014 / p. 1251-1273 : ill <https://doi.org/10.1007/s10652-013-9285-4> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hoone kanalisatsioon [Võrguteavik] = Draining system inside buildings / Eesti Standardimis- ja Akrediteerimiskeskus
2021 https://www.ester.ee/record=b5449156*est

Hydraulic characteristics of test rig used in filling and emptying experiments of large-scale PVC pipeline

Laanearu, Janek; Westende, Jos M.C. van't Proceedings of the HYDRALAB III Joint Transnational Access User Meeting : Hannover, February 2010 2010 / p. 5-8 : ill https://hydralab.eu/uploads/proceedings/Delft-4_Laanearu.pdf

Hydraulic control of two-layer flow in "quadratic"-type channels

Laanearu, Janek; Davies, Peter Journal of hydraulic research 2007 / 1, p. 3-12

Hydraulic formulae of two-layer exchange flow in an obstructed channel with trapezoidal cross-section

Laanearu, Janek; Cuthbertson, Alan 6th IAHR Europe Congress, Warsaw, Poland : abstract book 2021 / p. 245-246 <https://iahr2020.pl/wp-content/uploads/2021/02/Book-of-Abstracts-15-02-2021.pdf>

Hydraulic modelling challenges of river-basin restoration channels in some Estonian rivers

Laanearu, Janek 10th International Symposium on Environmental Hydraulics 2024 : book of abstracts 2024 / 2 p

Hydraulic modelling of interfacial processes for two-layer maximal exchange

Laanearu, Janek; Cuthbertson, Alan Proceedings of the 7th Europe Congress of the International Association for Hydro-environment Engineering and Research (IAHR), Athens, Greece, September 7 – 9, 2022 : Abstract Book 2022 / p. 305-306 <https://www.erasmus.gr/microsites/1227/book-of-abstracts>

Hydraulic modelling of oil spill through submerged orifices in damaged ship hulls

Kollo, Monika; **Laanearu, Janek**; **Tabri, Kristjan** Ocean engineering 2017 / p. 385-397 : ill <https://doi.org/10.1016/j.oceaneng.2016.11.032> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hydraulic modelling of stratified bi-directional flow in a river mouth

Laanearu, Janek; **Vassiljev, Anatoli**; Davies, Peter A. Engineering and computational mechanics 2011 / p. 207-216 : ill https://www.researchgate.net/publication/259638019_Hydraulic_modelling_of_stratified_bi-directional_flow_in_a_river_mouth

Hydraulic modelling of submerged oil spill including tanker hydrostatic overpressure

Sergejeva, Monika; **Laanearu, Janek**; **Tabri, Kristjan** Analysis and design of marine structures : proceedings of the 4th International Conference on Marine Structures (MARSTRUCT 2013), Espoo, Finland, 25-27 March 2013 2013 / p. 209-217 : ill

Hydraulics of stratified sill flows within varying channel geometries : investigating energy loss and mixing of maximal two-layer exchange

Laanearu, Janek; Cuthbertson, Alan Environmental fluid mechanics 2023 / p. 429-464 <https://doi.org/10.1007/s10652-022-09899-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improved one-dimensional models for rapid emptying and filling of pipelines

Tijsseling, Arris S.; Hou, Qingzhi; Bozkus, Zafer; **Laanearu, Janek** Journal of pressure vessel technology 2016 / p. 031301-1 - 031301-11 : ill <https://doi.org/10.1115/1.4031508> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Improvements of series convergence to the rotating-channel flow problem using hydraulic solutions for a parabolic passage

Lundberg, Peter; **Laanearu, Janek** Journal of hydraulic research 2018 / p. 313-323 : ill <https://doi.org/10.1080/00221686.2017.1354929> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Interfacial mixing of dense-water overflow in a converging and up-sloping channel

Laanearu, Janek; Cuthbertson, Alan; Davies, Peter A. Proceedings of the 2nd IAHR European Conference : June 27-29, 2012, München, Bavaria, Germany 2012 / [6] p <https://www.iahr.org/library/infor?pid=11198>

Interfacial mixing of the stratified flow in the trapezoidal-shape channel with presence of background vorticity

Laanearu, Janek; **Kaur, Katrin**; Malcangio, Daniela 8th IAHR Europe Congress "Water - across boundaries" : book of abstracts 2024 / p. 177-178 https://www.iahr2024.inec.pt/_files/ugd/366a17_38aaf3e046644a339de05fee8f280f7a.pdf

Internal dynamics of a dense-water overflow in an up-sloping and converging vee-shaped channel

Laanearu, Janek; Cuthbertson, Alan; Davies, Peter A. Proceedings of 3rd International Symposium on Shallow Flows (ISSF) : June 4-6, 2012, Iowa City, IA, USA 2012 / [10] p https://www.researchgate.net/publication/283791510_Internal_Dynamics_of_a_Dense-water_Overflow_in_an_Up-sloping_and_Converging_Vee-shaped_Channel

Investigation of the eddy viscosity for a breaking wave in the surf zone = Turbulentse viskoossusteguri määramine murdlaine piirkonnas ranna-alal

Oldekop, Nelly 2019 <https://digikogu.taltech.ee/et/Item/4bff81c5-ce66-4efb-a833-0ae8e0fbdd9>

Is the Baltic deep-water transport through the Stolpe trench hydraulically controlled?

Borenäs, K.; Hietala, R.; Laanearu, Janek; Lundberg, Peter Abstract publications of the 23rd CBO, Helsinki, 2003. 1 2003 / p. 87

Joint influence of river stream, water level and wind waves on the height of sand bar in a river mouth

Laanearu, Janek; Koppel, Tiit; Soomere, Tarmo; Davies, Peter A. Nordic hydrology 2007 / 3, p. 287-302

<https://iwaponline.com/hr/article/38/3/287/688/Joint-influence-of-river-stream-water-level-and>

Lugeja küsib: kuidas linnaõhu lehest vabaneda?

Laanearu, Janek novaator.err.ee 2025 <https://novaator.err.ee/1609711500/lugeja-kusib-kuidas-linnaohu-lehest-vabaneda>

Management study of low-temperature water in the urban environment as a potential thermal-energy source

Laanearu, Janek; Borodinecs, Anatolijs; Rimeika, M.; Palm, B. 3rd International Conference "Innovative Materials, Structures and Technologies" : Riga, Latvia, 27-29 September 2017 : [abstracts] 2017 / p. 90

Mere- ja jõevee koostoime dünaamikast Pärnu jõe suudmealal

Laanearu, Janek Keskkonnatehnika 2013 / lk. 10-12 : ill https://artiklid.elnet.ee/record=b2639626*est

Mixing associated with density-driven exchange flow over estuarine barriers

Davies, Peter A.; Cuthbertson, Alan; Laanearu, Janek Mixing of coastal, estuarine and riverin shallow flows 2008 / p. 31-32

Modelling of exchange flow in horizontal channels with quadratic-shape cross sections : Pärnu river mouth case study

Laanearu, Janek; Vassiljev, Anatoli; Davies, Peter First IAHR European Division Congress : Herriot Watt University, Edinburgh, UK, 4th, 5th, 6th May 2010 : paper abstracts 2010 / p. 18

Modelling of odour dispersion from multiple point sources

Palmiste, Ülar; Kurnitski, Jarek; Laanearu, Janek IX International Symposium on Stratified Flows : abstracts 2022 / p. 77

https://www.dropbox.com/s/em57tmgs3ivcv5a/Abstract_book_Opt.pdf?dl=0

Modelling of stormwater discharge and quality in urban area

Koppel, Tiit; Vassiljev, Anatoli; Puust, Raido; Laanearu, Janek International journal of ecological science and environmental engineering 2014 / p. 80-90 : ill

Mürarikas Läänemeri : [TTÜ osaleb Läänemere veealuse müra mõõtmistööde projektis BIAS]

Laanearu, Janek Mente et Manu 2012 / lk. 9 https://www.ester.ee/record=b1242496*est

Numbrilised arvutuskeemid voolamise hüdraulikas

Laanearu, Janek; Piirsalu, Andres 2022 https://www.ester.ee/record=b5525227*est <https://digikogu.taltech.ee/et/Item/33c0c06f-f558-4025-a59b-2bb7b943c95e>

Numerical analysis of air-water stratified flow in pipe with branch junctions

Laanearu, Janek Proceedings of the 40th IAHR World Congress (Vienna, 2023) 2023 / p. 3196 - 3204 https://doi.org/10.3850/978-90-833476-1-5_iahr40wc-p0353-cd

Numerical modeling study of stratified flow and related air exchange in large-diameter water collection systems

Laanearu, Janek World environmental and water resources congress 2023 : adaptive planning and design in an age of risk and uncertainty 2023 / p. 1161-1174 <https://doi.org/10.1061/9780784484852.106>

Numerical modelling of the bottom gravity current in an obstructed channel with trapezoidal cross-section

Laanearu, Janek; Kaur, Katrin; Malcangio, Daniela; Cuthbertson, Alan; Adduce, Claudia; De Falco, Maria Chiara; Negretti, Eletta; Sommeria, Joel 6th IAHR Europe Congress, Warsaw, Poland : abstract book 2021 / p. 247-248 <https://iahr2020.pl/wp-content/uploads/2021/02/Book-of-Abstracts-15-02-2021.pdf>

Numerical study of Tallinn storm-water system flooding conditions using CFD simulations of multi-phase flow in a large-scale inverted siphon

Kaur, Katrin; Laanearu, Janek; Annus, Ivar IOP conference series : materials science and engineering 2017 / art. 012128, 8 p. : ill <https://doi.org/10.1088/1757-899X/251/1/012128> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Numerical study of Tallinn storm-water system flooding conditions using CFD simulations of multi-phase flow in a large-scale inverted siphon : [conference paper]

Kaur, Katrin; Laanearu, Janek; Annus, Ivar 3rd International Conference "Innovative Materials, Structures and Technologies" : Riga, Latvia, 27-29 September 2017 : [abstracts] 2017 / p. 78

Numerical study of turbulence characteristics of bidirectional flow through a trapezoidal channel

Kaur, Katrin; Malcangio, Daniela; **Laanearu, Janek** Proceedings of the 7th Europe Congress of the International Association for Hydro-environment Engineering and Research (IAHR), Athens, Greece, September 7 – 9, 2022 : Abstract Book 2022 / p. 287-288
<https://www.erasmus.gr/microsites/1227/book-of-abstracts>

Observed thermohaline fields and low-frequency currents in the Narva Bay

Laanearu, Janek; Lips, Urmas Proceedings of the Estonian Academy of Sciences. Engineering 2003 / 2, p. 91-106 : ill
https://artiklid.elnet.ee/record=b1012786*est

On coastal waves and related upwellings in the Narva Bay

Laanearu, Janek Coastal Engineering VI : Computer Modelling and Experimental Measurements of Seas and Coastal Regions : [papers of international conference] 2003 / p. 53-61 : ill

On determination of flow routes in a stormwater network using the least squares method

Laanearu, Janek; Annus, Ivar; Vassiljev, Anatoli; Koppel, Tiit Integrating Water Systems : proceedings of the Tenth International Conference on Computing and Control in the Water Industry 2009 : CCWI2009 : Sheffield, UK, 1-3 September 2009 2009 / p. 731-734

On long-wave dependent flow transitions in partially filled large-scale pipeline [Electronic resource]

Laanearu, Janek; Annus, Ivar; Koppel, Tiit Water Engineering for a Sustainable Environment : 33rd IAHR Congress, Vancouver, British Columbia, Canada, 9-14 August, 2009 2009 / p. 6553-6560 <https://www.iahr.org/library/infor?pid=24429>

On parameterization of emulsification and heat exchange in the hydraulic modelling of oil spill from a damaged tanker in winter conditions

Kollo, Monika; Laanearu, Janek; Tabri, Kristjan Progress in the Analysis and Design of Marine Structures : proceedings of the 6th International Conference on Marine Structures (MARSTRUCT 2017), Lisbon, Portugal, 8–10 May 2017 2017 / p. 43-50
<https://www.taylorfrancis.com/books/e/9781351653411>

An online platform for rapid oil outflow assessment from grounded tankers for pollution response

Tabri, Kristjan; Heinvee, Martin; Laanearu, Janek; Kollo, Monika; Goerlandt, Floris Marine pollution bulletin 2018 / p. 963-976 : ill
<https://doi.org/10.1016/j.marpolbul.2018.06.039> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

An optimal solution of thermal energy usage in the integrated system of stormwater collection and domestic-water heating

Kollo, Monika; Laanearu, Janek Urban water journal 2017 / p. 212-222 : ill <https://doi.org/10.1080/1573062X.2015.1086006> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Optimal utilization of rain-water heat in domestic water system of public building

Sergejeva, Monika; Laanearu, Janek CLIMA 2013 : 11th REHVA World Congress and the 8th International Conference on IAQVEC : June 16–19, 2013, Prague Congress Centre, Czech Republic : programme 2013 / p. 114

Parameterization of moderate net exchange-flow solutions for quadratic horizontal channels

Laanearu, Janek; Davies, Peter A. Mixing of coastal, estuarine and riverine shallow flows 2008 / p. 69-70

Parametric modelling study for filling of horizontal pipe containing water

Laanearu, Janek; Annus, Ivar; Sergejeva, Monika; Koppel, Tiit; Puust, Raido WDSA 2012 : 14th Water Distribution Systems Analysis Conference : 24-27 September 2012 in Adelaide, South Australia 2012 / p. 678-693
https://www.researchgate.net/publication/286954531_Parametric_modelling_study_for_filling_of_horizontal_pipe_containing_water

Passenger ship source level determination in shallow water environment

Mustonen, Mirko; Klauson, Aleksander; Laanearu, Janek; Ratasseppe, Madis; Folegot, Thomas; Clorennec, Dominique Proceedings of Meetings on Acoustics 2016 / art. 070015, p. 1-9 : ill <http://dx.doi.org/10.1121/2.0000323>

Rakenduslik hüdromehaanika

Laanearu, Janek 2019 https://www.ester.ee/record=b5187522*est

Reovee kogumise süsteem - riskid ja ohud, mida peaksime teadma

Piirsalu, Andres; **Laanearu, Janek** visionest.institute 2023 [Reovee kogumise süsteem — riskid ja ohud, mida peaksime teadma](#)

A review on potential use of low-temperature water in the urban environment as a thermal-energy source

Laanearu, Janek; Borodinecs, Anatolijs; Rimeika, M.; Palm, B. IOP conference series : materials science and engineering 2017 / art. 012054, p. 1-9 : ill <https://doi.org/10.1088/1757-899X/251/1/012054> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Reviewing the effectiveness of GPU power when used for water network optimization problems

Puust, Raido; Maddison, Madis; Laanearu, Janek Urban Water Management: Challenges and Opportunities : proceedings of the

11th International Conference on Computing and Control for the Water Industry (CCWI 2011), University of Exeter, 5-7 September 2011 / p. 3-7 : ill

https://www.researchgate.net/publication/262911610_Reviewing_the_effectiveness_of_GPU_power_when_used_for_water_network_optimization_problems

River-basin restoration hydraulic complexities in some Estonian rivers

Laanearu, Janek 8th IAHR Europe Congress "Water - across boundaries" : book of abstracts 2024 / p. 533-534

https://www.iahr2024.lnec.pt/_files/ugd/366a17_38aaf3e046644a339de05fee8f280f7a.pdf

River-basin restoration hydraulic complexities in some Estonian rivers : Quadratic-type channel flow characteristics at weirs and rapids

Laanearu, Janek 8th IAHR Europe Congress "Water - across boundaries" : full papers 2025 / p. 35-44

<https://www.iahr2024.lnec.pt/proceedings> <http://doi.org/10.34638/3zcb-9082>

Rotational effects on exchange flows across a submerged sill

Cuthbertson, Alan; Brentsen, J.; **Laanearu, Janek**; Asplin, Magdeli Environmental fluid mechanics 2021 / p. 405-432 : ill

<https://doi.org/10.1007/s10652-021-09779-5> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Semi-empirical method for estimation of energy losses in a large-scale pipeline

Laanearu, Janek; Annus, Ivar; Sergejeva, Monika; Koppel, Tiit Procedia engineering 2014 / p. 969-977 : ill

<https://doi.org/10.1016/j.proeng.2014.02.108> Conference Proceedings at Scopus Article at Scopus Article at WOS

Some aspects of fluid elasticity related to filling and emptying of large-scale pipeline

Laanearu, Janek; Bergant, Anton; Annus, Ivar; Koppel, Tiit; Westende, Jos M.C.van't Proceedings of the 3rd IAHR International Meeting of the Workgroup on Cavitation and Dynamic Problems in Hydraulic Machinery and Systems : Brno, Czech Republic, October 14-16, 2009. Part II 2009 / p. 465-474 : ill

Some estimates of the Baltic deep-water transport through the Stolpe trench

Borenäs, K.; Hietala, R.; **Laanearu, Janek**; Lundberg, Peter Tellus series A : dynamic meteorology and oceanography 2007 / 2, p. 238-248

<https://www.tandfonline.com/doi/abs/10.1111/j.1600-0870.2006.00221.x>

Stability study of the stratified flow in the trapezoidal-shape channel with presence of background vorticity

Laanearu, Janek; Kaur, Katrin; Malcangio, Daniela 10th International Symposium on Environmental Hydraulics 2024 : book of abstracts 2024 / 2 p

A study on relationships between forcing factors and morphological parameters of outlet areas of some rivers flowing into the Estonian coastal sea

Koppel, Tiit; Laanearu, Janek River basin management III : Third International Conference on River Basin Management 2005 / p. 225-235 : ill

<https://www.witpress.com/elibrary/wit-transactions-on-ecology-and-the-environment/83/15405>

Teadlased uurivad linnateedel liikuvaid kaevuluuke

Laanearu, Janek postimees.ee 2025 <https://teadus.postimees.ee/8260743/teadlased-uurivad-linnateedel-liikuvaid-kaevuluuke>

The behaviour of dense gravity currents in a rotating channel with converging topography

Cuthbertson, Alan; **Laanearu, Janek**; Davies, Peter; Wahlén, Anna Proceedings of the HYDRALAB III Joint Transnational Access User Meeting : Hannover, February 2010 / p. 155-158 : ill

https://www.academia.edu/74207598/The_behaviour_of_dense_gravity_currents_in_a_rotating_channel_with_converging_topography

The dynamics of bi-directional exchange flows

Adduce, Claudia; De Falco, Maria Chiara; Cuthbertson, Alan; **Laanearu, Janek**; Malcangio, Daniela; **Kaur, Katrin**; Negretti, Eletta; Sommeria, Joel 6th IAHR Europe Congress, Warsaw, Poland : abstract book 2021 / p. 231-232 <http://iahr2020.pl/wp-content/uploads/2021/02/Book-of-Abstracts-15-02-2021.pdf>

The Dynamics of bi-directional exchange flows : implications for morphodynamic change within estuaries

Adduce, Claudia; De Falco, Maria Chiara; Cuthbertson, Alan; **Laanearu, Janek**; **Kaur, Katrin** Trans-national Access in Hydralab+ : proceedings of the Joint User Meeting Bucharest - May 23, 2019 / p. 19-26 : ill <https://hydralab.eu/assets/Proceedings-Hydralab-Joint-User-Meeting-May-23-Bucharest.pdf>

Three-dimensional CFD analysis of liquid slug acceleration and impact in a voided pipeline with end orifice

He, Junling; Hou, Qingzhi; Lian, Jijian; Tijsseling, Arris S.; Bozkus, Zafer; **Laanearu, Janek**; Lin, Lei Engineering Applications of Computational Fluid Mechanics 2022 / p. 1444-1463 <https://doi.org/10.1080/19942060.2022.2095440> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

Topographically constrained deep-water flows in the Baltic Sea

Laanearu, Janek; Lundberg, Peter Journal of sea research 2003 / p. 257-265 : ill

Transient flow during filling of horizontal pipe containing water

Laanearu, Janek; Annus, Ivar; Raidmaa, Meelis; Koppel, Tiit Urban Water Management: Challenges and Opportunities : proceedings of the 11th International Conference on Computing and Control for the Water Industry (CCWI 2011), University of Exeter, 5-7 September 2011 2011 / p. 913-918 : ill

Two-phase CFD modelling of air-water flow transition in a horizontal circular pipe and comparisons with experimental results

Laanearu, Janek; Kaur, Katrin Papers presented at 13th International Conference on Pressure Surges, Bordeaux, France, 14th-16th November, 2018 ; volume 2 2018 / p. 937-948 : ill

Underwater soundscape

Pajala, Jukka; **Klauson, Aleksander; Laanearu, Janek;** Peltonen, Heikki; **Mustonen, Mirko** The Gulf of Finland assessment 2016 / p. 292-305 : ill <http://hdl.handle.net/10138/166296>

Uni- and bidirectional stratified flows in submerged openings of built environment = Ühe- ja kahesuunaline stratifitseeritud voolamine konstruktsioonipiirde uputatud avades

Kollo, Monika 2018 <https://digi.lib.ttu.ee/i/?9257> https://www.ester.ee/record=b4758708*est

Use of the rotating hydraulics for description of overflows through the Baltic Straits

Laanearu, Janek The 2nd Meeting on the Physical Oceanography of Sea Straits, Villefranche, 15th-19th April 2002 2002 / p. 147-150 : ill

Using CFD to simulate multi-phase flow in a large-scale inverted siphon : Tallinn storm-water system case study

Kaur, Katrin; Laanearu, Janek; Annus, Ivar 14th International CCWI Conference : 7-9 November 2016 2016 / [8] p. : ill

Using MOC based method to detect abnormal conditions in water networks with less computational effort

Puust, Raido; Sergejeva, Monika; Laanearu, Janek Proceedings of HIC 2012 : 10th International Conference on Hydroinformatics : Hamburg (Germany), July 14-18, 2012 2012

Using transient flow equations for modelling of filling and emptying of the large-scale pipeline

Koppel, Tiit; Laanearu, Janek; Annus, Ivar; Raidmaa, Meelis Water Distribution System Analysis 2010 : WDSA2010 : Tucson, AZ, USA, Sept. 12-15, 2010 2010 / [9] p.: ill <https://ascelibrary.org/doi/10.1061/41203%28425%2912>

Uued inimesed ja positsioonid

Tammet, Tanel; Uska, Riina; Laanearu, Janek; Tabri, Kristjan; Vendelin, Marko; Margus, Madis; Kindsigo, Merit; Talpsepp, Tõnn; Tähemaa, Toivo; Laos, Katrin; Liiv, Innar; Rüütmann, Tiia; Sarapuu, Külli; Kikkas, Kaido; Pachel, Karin Mente et Manu 2022 / lk. 40-49 : fot https://www.ester.ee/record=b1242496*est

Water-column mass losses during the emptying of a large-scale pipeline by pressurized air

Laanearu, Janek; Hou, Qingzhi; **Annus, Ivar;** Tijsseling, Arris S. Proceedings of the Estonian Academy of Sciences 2015 / p. 8-16 : ill https://artiklid.elnet.ee/record=b2717477*est <https://doi.org/10.3176/proc.2015.1.02> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#) [Article at WOS](#)

Väliskanaliseerimisvõrk [Võrguteavik] = Sewer system inside buildings

2021 https://www.ester.ee/record=b5449238*est

Не Таллинн, а Венеция : почему каждый раз во время ливней столицу затопливает?

mke.ee 2023 [Не Таллинн, а Венеция: почему каждый раз во время ливней столицу затопливает?](#)