

Autonomous PIV-measurements in the Tallinn Bay

Erm, Ants; Listak, Madis; Rebane, Jaan; Toming, Gert; Buschmann, Fred International Coastal Symposium 2013 : book of abstracts : Plymouth University, 8–12 April 2013 2013 / p. 376

Autonomous underwater device for 2D particle image velocimetry field analysis

Buschmann, Fred; Erm, Ants; Listak, Madis; Rebane, Jaan; Toming, Gert BSSC 9th Baltic Sea Science Congress 2013 : New Horizons for Baltic Sea Science, Klaipeda, Lithuania, 26-30 August 2013 : [abstracts] 2013 / p. 147

A bio-inspired compliant robotic fish : design and experiments

EL Daou, Hadi; Salumäe, Taavi; Toming, Gert; Kruusmaa, Maarja 2012 IEEE International Conference on Robotics and Automation : ICRA : Saint Paul, Minnesota, USA, May 14-18, 2012 2012 / p. 5340-5345 : ill
https://www.researchgate.net/publication/254041437_A_bio-inspired_compliant_robotic_fish_Design_and_experiments

Bio-inspired robotic fish for assessment of injury risks during the fish passage

Abbaszadeh, Shokoofeh; Toming, Gert; Tuhtan, Jeffrey Andrew; Leidhold, Roberto; Hoerner, Stefan Proceedings of the 15th International Symposium on Ecohydraulics and Fish Passage 2024 (ISE-FP) 2024 / 1 p.
https://www.researchgate.net/publication/381655658_Bio-inspired_robotic_fish_for_assessment_of_injury_risks_during_the_fish_passage

A bio-mimetic design and control of a fish-like robot using compliant structures

EL Daou, Hadi; Salumäe, Taavi; Ristolainen, Asko; Toming, Gert; Listak, Madis; Kruusmaa, Maarja The 15th International Conference on Advanced Robotics : Tallinn, Estonia, June 20-23, 2011 2011 / p. 563-568 : ill

Comparison of near-body flow fields of a gudgeon and NACA013 profile

Khan, Ali Hassan; Toming, Gert; Hoerner, Stefan; Tuhtan, Jeffrey A. GeoPlanet: Earth and Planetary Sciences 2024 / p. 231 - 242 https://doi.org/10.1007/978-3-031-56093-4_18 [Article Collection metrics at Scopus](#) [Article at Scopus](#)

Current velocity estimation using a lateral line probe

Fuentes-Pérez, Juan Francisco; Tuhtan, Jeffrey Andrew; Carbonell Baeza, Ruth; Musall, Mark; Toming, Gert; Muhammad, Naveed; Kruusmaa, Maarja Ecological engineering 2015 / p. 296-300 : ill <https://doi.org/10.1016/j.ecoleng.2015.10.008> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design and application of a fish-shaped lateral line probe for flow measurement

Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Strokina, Nataliya; Toming, Gert; Musall, Mark; Noack, M.; Kämäräinen, Joni-Kristian; Kruusmaa, Maarja Review of scientific instruments 2016 / p. 045110-1 - 045110-8 : ill
<https://doi.org/10.1063/1.4946765> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Design principle of a biomimetic underwater robot U-CAT

Salumäe, Taavi; Raag, Rasmus; Rebane, Jaan; Ernits, Andres; Toming, Gert; Ratas, Mart; Kruusmaa, Maarja OCEANS'14 MTS/IEEE St. John's : St. Johns, Newfoundland, Canada, 14-19 September 2014 2014 / [5] p. : ill

Ein Fisch ist kein Punkt: Analyse von Strömungssignaturen in Fischaufstiegsanlagen mit einem Seitenlinien Sensor

Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Toming, Gert; Schneider, Matthias; Schletterer, Martin Wasserwirtschaft 2018 / S. 48-53 : ill <https://doi.org/10.1007/s35147-018-0015-1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Estimation of flow turbulence metrics with a lateral line probe and regression

Chen, Ke; Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Toming, Gert; Musall, Mark; Strokina, Nataliya; Kämäräinen, Joni-Kristian; Kruusmaa, Maarja IEEE transactions on instrumentation and measurement 2017 / p. 651-660 : ill
<https://doi.org/10.1109/TIM.2017.2658278> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experimental study of hydrodynamic forces acting on artificial fish in a von Kármán vortex street

Toming, Gert; Chambers, Lily D.; Kruusmaa, Maarja Underwater technology 2014 / p. 81-91 : ill <https://doi.org/10.3723/ut.32.081> [Journal metrics at Scopus](#) [Article at Scopus](#)

FILOSE for svenning : a flow sensing bioinspired robot

EL Daou, Hadi; Ježov, Jaas; Jung, David S.; Kruusmaa, Maarja; Listak, Madis; Salumäe, Taavi; Toming, Gert IEEE robotics and automation magazine 2014 / p. 51-62 : ill <https://doi.org/10.1109/MRA.2014.2322287> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fish body geometry reduces the upstream velocity profile in subcritical flowing waters

Bensing, Katharina; Tuhtan, Jeffrey Andrew; Toming, Gert; Khan, Ali Hassan; Lehmann, Boris Aquatic sciences 2022 / p. 1-14 : ill <https://doi.org/10.1007/s00027-022-00863-6> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A fish-friendly axial flow pump turns out to be eel safe, roach unfriendly and bream unsafe

Bruneel, Stijn; Pauwels, Ine S.; Broos, Sarah; Vandamme, Lore; Van Wichelen, Jeroen; Coeck, Johan; Toming, Gert; Tuhtan, Jeffrey Andrew; Buysse, David Scientific reports 2024 / art. 30234, 18 p. : ill <https://doi.org/10.1038/s41598-024-81095-6> [Journal](#)

[metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

FishView : developing a hydrodynamic imaging system using a robot fish with an artificial lateral line

Tuhtan, Jeffrey Andrew; Kruusmaa, Maarja; Toming, Gert 10th International Symposium on Ecohydraulics : Trondheim, Norway, 23-27 June 2014 2014 / [4] p. : ill

Flow feature extraction for underwater robot localization : preliminary results

Muhammad, Naveed; Strokina, Nataliya; Toming, Gert; Tuhtan, Jeffrey Andrew; Kämäräinen, Joni-Kristian; Kruusmaa, Maarja 2015 IEEE International Conference on Robotics and Automation (ICRA) : Washington State Convention Center, Seattle, Washington, May 26-30, 2015 2015 / p. 1125-1130 : ill <https://doi.org/10.1109/ICRA.2015.7139317> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Flow velocity estimation using a fish-shaped lateral line probe with product-moment correlation features and a neural network

Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Toming, Gert; Kruusmaa, Maarja Flow measurement and instrumentation 2017 / p. 1-8 : ill <https://doi.org/10.1016/j.flowmeasinst.2016.10.017> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Fluid body interaction of biomimetic underwater robots = Biomimeetiliste robotite ja vedeliku vastasmõju

Toming, Gert 2017 <https://digi.lib.ttu.ee/i/?7304> https://www.eester.ee/record=b4665016*est

Fluid dynamics experiments with a passive robot in regular turbulence

Toming, Gert; Salumäe, Taavi; Ristolainen, Asko; Visentin, Francesco; Akanyeti, Otar; Kruusmaa, Maarja Proceedings of the 2012 IEEE International Conference on Robotics and Biomimetics : December 11-14, 2012, Guangzhou, China 2012 / p. 532-537 : ill https://www.researchgate.net/publication/261276529_Fluid_dynamics_experiments_with_a_passive_robot_in_regular_turbulence

Hydrodynamic classification of natural flows using an artificial lateral line and frequency domain features

Tuhtan, Jeffrey Andrew; Strokina, Nataliya; Toming, Gert; Muhammad, Naveed; Kruusmaa, Maarja; Kämäräinen, Joni-Kristian E-proceedings of the 36th IAHR World Congress : 28 June - 3 July, 2015, The Hague, the Netherlands 2015 / p. 1-8 : ill

Hydrodynamic pressure sensing with an artificial lateral line in steady and unsteady flows

Venturelli, Roberto; **Ježov, Jaas; Toming, Gert; Kruusmaa, Maarja** Bioinspiration & biomimetics 2012 / 12 p. : ill <https://pubmed.ncbi.nlm.nih.gov/22498729/>

Man-made flows from a fish's perspective : autonomous classification of turbulent fishway flows with field data collected using an artificial lateral line

Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Toming, Gert; Schneider, Matthias; Schwarzenberger, Richard; Schletterer, Martin; Kruusmaa, Maarja Bioinspiration & biomimetics 2018 / art. 046006, 17 p. : ill <https://doi.org/10.1088/1748-3190/aabc79> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Map-based localization and loop-closure detection from a moving underwater platform using flow features

Muhammad, Naveed; Fuentes-Pérez, Juan Francisco; Tuhtan, Jeffrey Andrew; Toming, Gert; Kruusmaa, Maarja; Musall, Mark Autonomous robots 2019 / p. 1419-1434 : ill <https://doi.org/10.1007/s10514-018-9797-3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A method to improve instationary force error estimates for undulatory swimmers

Tuhtan, Jeffrey Andrew; Toming, Gert; Ruuben, Toomas; Kruusmaa, Maarja Underwater technology 2016 / p. 141-151 : ill <https://doi.org/10.3723/ut.33.141> [Journal metrics at Scopus](#) [Article at Scopus](#)

Monitoring sediment transport in the coastal zone of Tallinn Bay

Buschmann, Fred; Erm, Ants; Alari, Victor; Listak, Madis; Rebane, Jaan; Toming, Gert 2012 IEEE/OES Baltic International Symposium (BALTIC) : May 8-11, 2012, Klaipeda, Lithuania : [proceedings] 2012 / p. 1-13 : ill https://www.researchgate.net/publication/261379280_Monitoring_sediment_transport_in_the_coastal_zone_of_Tallinn_Bay

Multi-species assessment of injury, mortality, and physical conditions during downstream passage through a large Archimedes hydrodynamic screw (Albert Canal, Belgium)

Pauwels, Ine S.; Baeyens, Raf; **Toming, Gert; Tuhtan, Jeffrey Andrew** Sustainability 2020 / art. 8722, 25 p. : ill <https://doi.org/10.3390/su12208722> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Myometry-driven compliant-body design for underwater propulsion

Akanyeti, Otar; **Listak, Madis; Ernits, Andres; Fiazza, Maria-Camilla; Toming, Gert; Kulikovskis, Guntis; Raag, Rasmus; Salumäe, Taavi; Fiorini, Paolo; Kruusmaa, Maarja** IEEE International Conference on Robotics and Automation : ICRA 2010 : Anchorage, Alaska, USA, 3-7 May 2010 2010 / p. 84-89 <https://ieeexplore.ieee.org/document/5509431>

Near bottom sediment transport in some possible wind farm locations in the Estonian coastal sea

Erm, Ants; Buschmann, Fred; Alari, Victor; Kask, Jüri; Listak, Madis; Rebane, Jaan; Toming, Gert 11th Colloquium on Baltic

A new, non-invasive fish backpack biologist to measure the physical conditions experienced by swimming fish during downstream passage

Wagner, Falko; Busch, Andre; Buysse, David; Hoerner, Stefan; Kenndorf, Moritz; Pouwels, Ine; Rössger, Tom; Roth, Marcio Salgueiro; Schletterer, Martin; Stamm, Jürgen; **Toming, Gert; Tuhtan, Jeffrey Andrew** Fish Passage 2022 : Opportunities and Innovation in a Changing World : 13–16 June 2022 / p. 147 https://fishpassage.fisheries.org/wp-content/uploads/sites/57/2022/08/FPC_Program_YouTube-Links.pdf

Not just the pump; broader considerations for downstream migrating silver eels at a 'fishfriendly' pumping station

Evans, Oliver; Bolland, Jonathan; Carter, Liam; Hutchinson, Thomas; Collier, Stephen; Don, Andrew; Wright, Rosalind; **Tuhtan, Jeffrey Andrew; Toming, Gert** Fish Passage 2022 : Opportunities and Innovation in a Changing World : 13–16 June 2022 / p. 34 https://fishpassage.fisheries.org/wp-content/uploads/sites/57/2022/08/FPC_Program_YouTube-Links.pdf

RAPTOR-UAV : real-time particle tracking in rivers using an unmanned aerial vehicle

Thumser, Philipp; Haas, Christian; **Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Toming, Gert** Earth surface processes and landforms 2017 / p. 2439-2446 : ill <https://doi.org/10.1002/esp.4199> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Research overview on multi-species downstream migration measures at the Fithydro test case HPP Bannwil

Kriewitz-Byun, Carl Robert; **Tuhtan, Jeffrey Andrew; Toming, Gert**; Albayrak, Ismail; Kammerer, Stephan; Vetsch, David Florian; Peter, Armin; Stoltz, Ulli; Gabl, Walter; Marbacher, Daniel Fithydro 2018 / 5 p. : ill <https://doi.org/10.3929/ethz-b-000308171>

Rethinking fish-friendliness of pumps by shifting focus to both safe and timely fish passage for effective conservation

Evans, Oliver J.; Norman, Josh; Carter, Liam J.; Hutchinson, T.; Don, A.; Wright, Rosalind M.; **Tuhtan, Jeffrey Andrew; Toming, Gert**; Bolland, Jonathan D. Scientific reports 2024 / art. 17888, 12 p. : ill <https://doi.org/10.1038/s41598-024-67870-5> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Robootik, keda inspireerib loodus

Kruusmaa, Maarja Horisont 2017 / lk. 26-31 : fot http://www.ester.ee/record=b1072243*est https://artiklid.elnet.ee/record=b2811777*est

Swimming speed control and on-board flow sensing of an artificial trout

Kruusmaa, Maarja; Toming, Gert; Salumäe, Taavi; Ježov, Jaas; Ernits, Andres 2011 IEEE International Conference on Robotics and Automation : ICRA : May 9-13, 2011, Shanghai, China 2011 / p. 1791-1796 : ill https://www.researchgate.net/publication/224252443_Swimming_speed_control_and_on-board_flow_sensing_of_an_artificial_trout

Zur Bedeutung bioinspirierter Messtechnik in der Ethohydraulik

Bensing, Katharina; Lehmann, Boris; **Tuhtan, Jeffrey Andrew; Toming, Gert** Wasserwirtschaft 2024 / p. 26-33 <https://doi.org/10.1007/s35147-024-2412-y> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The RETERO Project : 3R motivated risk assessment methods for downstream fish passage through hydraulic structures

Hoerner, Stefan; Abbaszadeh, Shokoofeh; Busch, Andre; Kopecki, Ianina; Leidhold, Roberto; Müller, Nadine; Powalla, Dennis; Rössger, Tom; Roth, Marcio Salgueiro; Schneider, Matthias; Stamm, Jürgen; Thevenin, Dominique; **Toming, Gert; Tuhtan, Jeffrey Andrew**; Wagner, Falko; Warth, Peter 14th International Symposium on Ecohydraulics (ISE 2022) : October 10-14, 2022 : Nanjing, China 2022 / p. 1-5 : ill https://iahr.oss-accelerate.aliyuncs.com/upload/file/20221009/20221009192646_12566.pdf

3D CFD analysis of pressure, boundary layer and shear stresses on a gudgeon (Gobio gobio)

Khan, Ali Hassan; Hoerner, Stefan; **Toming, Gert; Kruusmaa, Maarja; Tuhtan, Jeffrey A.** Journal of ecohydraulics 2024 / 15 p <https://doi.org/10.1080/24705357.2024.2426809> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

TTÜ juhtimisel luuakse robotkala

Toming, Gert Keskkonnatehnika 2011 / 5, lk. 8-9 : ill https://artiklid.elnet.ee/record=b2426031*est

TTÜ teadlased katsetasid Muhu rannikuvees maailmas ainulaadseid rõhuandureid [Võrguväljaanne]

Muld, Margus novaator.err.ee 2020 / fot [TTÜ teadlased katsetasid Muhu rannikuvees maailmas ainulaadseid rõhuandureid](#)

Underwater experiments and a theoretical model – case study in Tallinn Bay

Erm, Ants; Buschmann, Fred; Listak, Madis; Rebane, Jaan; Toming, Gert Journal of coastal research 2013 / p. 1521-1526 : ill <https://doi.org/10.2112/SI65-257> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Underwater map-based localization using flow features

Muhammad, Naveed; Toming, Gert; Tuhtan, Jeffrey A.; Musall, Mark; **Kruusmaa, Maarja** Autonomous robots 2017 / p. 417-436 : ill <https://doi.org/10.1007/s10514-016-9558-0> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Uudset kalakaamerat testitakse Purtse jões

