

Aasta teaduspeemia tehnikateaduste alal tööde tsükli "Bioloogiast inspireeritud allveerobotite liikumine ja tajud" eest : Maarja Kruusmaa

Kruusmaa, Maarja Eesti Vabariigi preemiad 2016 : teadus. F. J. Wiedemanni keeleaühind. Kultuur. Sport 2016 / lk. 84-95 : ill., portr

Against the flow : a Braitenberg controller for a fish robot

Salumäe, Taavi; Rano, Inaki; Akanyeti, Otar; Kruusmaa, Maarja 2012 IEEE International Conference on Robotics and Automation : ICRA : Saint Paul, Minnesota, USA, May 14-18, 2012 / p. 4210-4215 : ill <https://ieeexplore.ieee.org/document/6225023>

Akadeemik Maarja Kruusmaa : ebakindlus on uus reaalsus

Kruusmaa, Maarja Mente et Manu 2017 / lk. 12-17 : fot http://www.ttu.ee/public/m/mente-et-manu/MM_01_2017/index.html

Amfiibrobotid aitavad aimu saada veealusest elust

Traks, Kristina novaator.err.ee 2023 [Amfiibrobotid aitavad aimu saada veealusest elust](#) [Robotid aitavad aimu saada veealusest elust](#)

An advanced finite element model of IPMC

Pugal, Deivid; Kasemägi, Heiki; Kruusmaa, Maarja; Aabloo, Alvo Electroactive Polymer Actuators and Devices (EAPAD) 2008 2008 / p. 692711

An integrated electroactive polymer sensor-actuator : design, model-based control, and performance characterization

Hunt, Andres; Chen, Zheng; Tan, K.; Kruusmaa, Maarja Smart materials and structures 2016 / art. 035016, p. 1-16 : ill <https://doi.org/10.1088/0964-1726/25/3/035016> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Apokalüpsise ratsanikega tuleb tegeleda korraga

Kruusmaa, Maarja Postimees 2022 / Lk. 8 [Apokalüpsise ratsanikega tuleb tegeleda korraga](#) [Apokalüpsise ratsanikega tuleb tegeleda korraga](#)

Application-oriented performance characterization of the ionic polymer transducers (IPTs) = loonpolümeeridest täiturite võimekuse karakteriseerimine rakendusteks

Hunt, Andres 2017 <https://digi.lib.ttu.ee/ii/?7576> https://www.ester.ee/record=b4670806*est

The ARROWS project : robotic technologies for underwater archaeology

Allotta, Benedetto; Costanzi, Riccardo; Ridolfi, Alessandro; Salvetti, Ovidio; Reggiannini, Marco; Kruusmaa, Maarja; Salumäe, Taavi; Lane, David M. Mike; Frost, Gordon; Tsiogkas, Nikolaos; Cocco, Michele IOP conference series : materials science and engineering 2018 / art. 012088 <https://doi.org/10.1088/1757-899X/364/1/012088> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Artificial lateral line for aquatic habitat modelling: An example for Lefua echigonia

Garcia-Vega, Ana; Fuentes-Perez, Juan Francisco; Fukuda, Shinji; Kruusmaa, Maarja; Sanz-Ronda, Francisco Javier; Tuhtan, Jeffrey Andrew Ecological Informatics 2021 / art. 101388 <https://doi.org/10.1016/j.ecoinf.2021.101388> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessing safety of object pushing using the principle of reversibility

Gavšin, Juri; Kruusmaa, Maarja Hybrid Artificial Intelligent Systems : 6th International Conference : HAIS 2011 : Wroclaw, Poland, May 23-25, 2011 : proceedings. Part I 2011 / p. 313-320 : ill https://link.springer.com/chapter/10.1007/978-3-642-21219-2_40

Benchmarking 3D CFD for studies on turbulent flow around fish shaped bodies

Khan, Ali Hassan; Hussmann, Karla Ruiz; Powala, Dennis; Hoerner, Stefan; Kruusmaa, Maarja; Tuhtan, Jeffrey Andrew The 14th International Symposium on Ecohydraulics : proceedings 2022 / S3: Ecohydraulics on Micro-scale https://iahr-oss-accelerate.aliyuncs.com/upload/file/20221009/20221009192523_72824.doc

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 / p. 5340-5345 : ill https://www.researchgate.net/publication/254041437_A_bio-inspired_compliant_robotic_fish_Design_and_experiments

Biologically inspired semi-autonomous underwater robot

Listak, Madis; Kruusmaa, Maarja US/EU-Baltic International Symposium : Ocean observations, ecosystem-based management & forecasting : May 27-29, 2008, Tallinn, Estonia : book of abstracts 2008 / p. 89

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 / p. 563-568 : ill

Biomimetic fish-like underwater robot for shallow water applications

Listak, Madis; Pugal, Deivid; Kruusmaa, Maarja 13th International Conference on Advanced Robotics : Korea, Jeju, 21-24 August, 2007 / p. 332-336

Biomimetic mechanical design for soft-bodied underwater vehicles

Fiazza, C.; **Salumäe, Taavi**; **Listak, Madis**; Kulikovskis, Guntis; Templeton, R.; Akanyeti, Otar; Megill, W.; Fiorini, Paolo; **Kruusmaa, Maarja** IEEE OCEANS : Sydney, 24-27 May 2010 / [7] p.: ill

Biorobootik Maarja Kruusmaa : peame valmis olema suurteks muutusteks

Aesma, Madis; **Kruusmaa, Maarja** Eesti Päevaleht 2016 / lk. 42-46 <https://epl.delfi.ee/artikkel/76462663/biorobootik-maarja-kruusmaa-peame-olema-valmis-suurteks-muutusteks> https://artiklid.elnet.ee/record=b2808283*est

Biorobootik Maarja Kruusmaa paneb robotid kalade kombel ujuma

Linnard, Henry; **Kruusmaa, Maarja** Õhtuleht 2017 / lk. 22-23 <https://www.oh tuleht.ee/loodus/807381/biorobootik-maarja-kruusmaa-paneb-robotid-kalade-kombel-ujuma>

Biorobootika : hetkeseis ja arengusuunad : avalik loeng 14. mail 2007 TTÜs

Kruusmaa, Maarja Tallinna Tehnikaülikooli aastaraamat 2007 2008 / lk. 332-334 : ill

Collective responses of a large mackerel school depend on the size and speed of a robotic fish but not on tail motion

Kruusmaa, Maarja; Rieucan, Guillaume; Castillo Montoya, Jose Carlos; **Markna, Riho**; Handegard, Nils Olav Bioinspiration & biomimetics 2016 / p. 1-12 : ill <https://doi.org/10.1088/1748-3190/11/5/056020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Comparative experiments on the emergence of safe behaviours

Gavšin, Juri; **Kruusmaa, Maarja** Towards Autonomous Robotic Systems 2008 : Edinburgh, 1-3 September 2008 2008 / ? p

Computational fluid dynamics simulations of a biomimetic underwater robot

Listak, Madis; Pugal, Deivid; **Kruusmaa, Maarja** 13th International Conference on Advanced Robotics : Korea, Jeju, 21-24 August, 2007 2007 / p. 314-319 https://ims.ut.ee/images/d/d4/Listak_icar2007_15_03.pdf

Computational fluid dynamics simulations of a biomimetic underwater robot

Listak, Madis; Pugal, Deivid; **Kruusmaa, Maarja** 8th International Workshop on Research and Education in Mechatronics 2007 : 14-15 June 2007, Tallinn, Estonia 2007 / p. 72-77 : ill

Construction of a female shape-changing robotic mannequin

Abels, Artur; **Kruusmaa, Maarja** International journal of automation and control engineering 2013 / p. 132-134 : ill

Continuous, near-bed current velocity estimation using pressure and inertial sensing

Ristolainen, Asko; Tuhtan, Jeffrey Andrew; **Kruusmaa, Maarja** IEEE sensors journal 2019 / p. 12398 - 12406 : ill <https://doi.org/10.1109/JSEN.2019.2937954> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Contributions to the modelling and control of fin-actuated autonomous underwater vehicles = Uimedega autonoomsete allveesõidukite modelleerimis- ja juhtimisloogika edendamise

Remmas, Mohamed Walid 2023 <https://doi.org/10.23658/taltech.71/2023> <https://digikogu.taltech.ee/et/Item/17167e2e-2c31-451c-834d-1da98160b2ce> https://www.ester.ee/record=b5647340*est

Control allocation for 6-DOF control of a highly manoeuvrable under-actuated bio-inspired AUV

Remmas, Mohamed Walid; Meurer, Christian; Chemori, Ahmed; **Kruusmaa, Maarja** IEEE Transactions on Robotics 2023

Control of an inverted pendulum using an ionic polymer-metal composite actuator

Hunt, Andres; Chen, Zheng; Tan, Xiaobo; **Kruusmaa, Maarja** IEEE/ASME Transactions in Mechatronics : 2010 IEEE/ASME International Conference on Advanced Intelligent Mechatronics : July 6-9, 2010, Montréal, Canada 2010 / p. 163-168 : ill <https://ieeexplore.ieee.org/document/5695913>

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](#)

Data-driven cross-layer fault management architecture for sensor networks

Vihman, Lauri; **Kruusmaa, Maarja**; **Raik, Jaan** 16th European Dependable Computing Conference : EDCC 2020 : Virtual Conference, Munich, Germany, 7-10 September 2020 : proceedings 2020 / art. 20094188, p. 33-40 <https://doi.org/10.1109/EDCC51268.2020.00015>

Data-driven fault-resilient cross-layer sensor network architecture = Andmepõhine tõrkekindel kihtideülene sensorvõrgu arhitektuur

Vihman, Lauri 2024 https://www.ester.ee/record=b5657135*est <https://digikogu.taltech.ee/et/Item/00a93258-dc0f-4a4d-822f-099ff757224> <https://doi.org/10.23658/taltech.7/2024>

Depth control of the biomimetic U-CAT turtle-like AUV with experiments in real operating conditions

Chemori, Ahmed; **Kuusmik, Keijo; Salumäe, Taavi; Kruusmaa, Maarja** 2016 IEEE International Conference on Robotics and Automation : Stockholm, Sweden, May 16th-21st 2016 / p. 4750-4755 : ill <https://doi.org/10.1109/ICRA.2016.7487677> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [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 of a shape-changing anthropomorphic mannequin for tailoring applications

Abels, Artur; **Kruusmaa, Maarja** ICAR 2009 : 14th International Conference on Advanced Robotics : Munich, Germany, June 22-26, 2009 2009 / [6] p

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

Development and experimental assessment of a flexible robot fin

Gkliva, Roza; Sfakiotakis, Michael; **Kruusmaa, Maarja** 2018 IEEE International Conference on Soft Robotics (RoboSoft) : proceedings 2018 / p. 208-213 : ill <https://doi.org/10.1109/ROBOSOFT.2018.8404921>

Development of a cognitive robotic system for simple surgical tasks

Muradore, Riccardo; Fiorini, Paolo; **Li, Lin; Kruusmaa, Maarja; Ristolainen, Asko** International journal of advanced robotic systems 2015 / p. 1-20 : ill <https://doi.org/10.5772/60137> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Development of high fidelity liver and kidney phantom organs for use with robotic surgical systems

Õpik, Rivo; Hunt, Andres; Ristolainen, Asko; Aubin, Patrick M.; **Kruusmaa, Maarja** Proceedings of the 4th IEEE RAS & EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob), 24-27 June 2012, Rome, Italy 2012 / p. 425-430 : ill <https://ieeexplore.ieee.org/document/6290831>

Differential pressure sensor speedometer for autonomous underwater vehicle velocity estimation

Meurer, Christian; Francisco Fuentes-Perez, Juan; Palomeras, Narcis; **Carreras, Marc; Kruusmaa, Maarja** IEEE Journal of Oceanic Engineering 2020 / p. 946 - 978 <https://doi.org/10.1109/JOE.2019.2907822> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Differential pressure sensors for underwater speedometry in variable velocity and acceleration conditions

Fuentes-Perez, Juan Francisco; Meurer, Christian; Tuhtan, Jeffrey Andrew; Kruusmaa, Maarja IEEE Journal of Oceanic Engineering 2018 / p. 418-426 : ill <https://doi.org/10.1109/JOE.2017.2767786> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A distributed model of ionomeric polymer metal composite

Punning, Andres; Johanson, Urmas; Anton, Mart; Aabloo, Alvo; **Kruusmaa, Maarja** Journal of intelligent material systems and structures 2009 / p. 1711-1724 : ill <https://doi.org/10.1177/1045389X0933717>

Diver tracking in open waters : a low-cost approach based on visual and acoustic sensor fusion

Remmas, Mohamed Walid; Chemori, Ahmed; **Kruusmaa, Maarja** Journal of field robotics 2021 / p. 494–508 <https://doi.org/10.1002/rob.21999> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Doktorikraad annab juhiloa, mitte töökoha

Kruusmaa, Maarja Eesti Teaduste Akadeemia aastaraamat = Annales academiae scientiarum Estonicae 2016 2017 / lk. 68-71 : fot http://www.estar.ee/record=b1218094*est

Doktorikraad annab juhiloa, mitte töökoha

Kruusmaa, Maarja Postimees 2016 / AK, lk. 7 https://artiklid.elnet.ee/record=b2803182*est <https://teadus.postimees.ee/3876751/maarja-kruusmaa-doktorikraad-annab-juhiloa-mitte-tookoha>

Don't do things that you can't undo : reversibility models for generating safe behaviours

Kruusmaa, Maarja; Gavšin, Juri; Eppendahl, A. Proceedings of the 2007 IEEE International Conference in Robotics and Automation : ICRA'07 : Rome, Italy, 10-14 April 2007 2007 / p. 1134-1139 <https://ieeexplore.ieee.org/document/4209241>

Dynamical variation of the impedance of IPMC

Kruusamäe, Karl; Punning, Andres; **Kruusmaa, Maarja;** Aabloo, Alvo Proceedings of SPIE 2009 / Electroactive Polymer Actuators and Devices (EAPAD) 2009, p. 72870V-1 - 72870V-9 : ill https://www.researchgate.net/publication/236115865_Dynamical_variation_of_the_impedances_of_IPMC

Ecohydraulics of non-uniform flows in Vertical Slot Fishways

Branco, Paulo; **Fuentes-Pérez, Juan Francisco**; Eckert, Mario; **Tuhtan, Jeffrey Andrew**; **Kruusmaa, Maarja** Riverine landscapes as coupled socio-ecological systems : 6th biennial Symposium of the International Society for River Science : book of abstracts 2019 / p. 183 https://www.bib.irb.hr/1025362/download/1025362.ISRS2019_book_of_abstracts.pdf

Economically affordable anatomical kidney phantom with calyces for puncture and drainage training in interventional urology and radiology

Ristolainen, Asko; **Ross, Peeter**; **Gavšin, Juri**; Semjonov, Eero; **Kruusmaa, Maarja** Acta radiologica short reports 2014 / p. 1-7 : ill

Eestlaste revolutsioon veebirõivakaubanduses : Massi Miliano OÜ : [robotmannekeenist ka Maarja Kruusmaa sõnul]

Lugude algus 2012 / lk. 96-97 : fot

Effectiveness of Vertical Slot Fishways under experimental non-uniform flows

Eckert, Mario; **Fuentes-Pérez, Juan Francisco**; **Tuhtan, Jeffrey Andrew**; **Kruusmaa, Maarja** Riverine landscapes as coupled socio-ecological systems : 6th biennial Symposium of the International Society for River Science : book of abstracts 2019 / p. 195 https://www.bib.irb.hr/1025362/download/1025362.ISRS2019_book_of_abstracts.pdf

Electrode reactions in Cu-Pt coated Nafion[r] actuators

Johanson, Urmas; Mäeorg, Uno; Brandell, Daniel; Punning, Andres; Torop, Janno; **Kruusmaa, Maarja**; Aabloo, Alvo Artificial Muscle Actuators using Electroactive Polymers 2009 / p. 75-80 https://www.researchgate.net/publication/236115789_Electrode_Reactions_in_Cu-Pt_Coated_NafionR_Actuators

Elus, surnud ja merel : Meri toob inimeses välja juba muinasmõttelejate kirjeldatud kolmanda oleku, leiab allveetehnoloog Maarja Kruusmaa

Kruusmaa, Maarja Postimees 2020 / Lk. 14 : fot https://heureka.postimees.ee/6863788/elus-surnud-ja-merel-antarktika-reis-toob-inimeses-esile-urgse-oleku?_ga=2.78530071.248236587.1578296660-1045332091.1401712292 https://www.ester.ee/record=b1072778*est

Emergence of safe behaviours with an intrinsic reward

Gavšin, Juri; **Kruusmaa, Maarja** Adaptive and Intelligent Systems : Second International Conference : ICAIS 2011 : Klagenfurt, Austria, September 6-8, 2011 : proceedings 2011 / p. 180-191 : ill https://link.springer.com/chapter/10.1007/978-3-642-23857-4_20

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](#)

Exponential distribution of wave-driven near-bed water speeds under short-crested waves: a case study in the eastern Gulf of Riga, the Baltic Sea

Eelsalu, Maris; **Piho, Laura**; Aigars, Juris; Kelpšaitė-Rimkienė, Loreta; Kondrat, Vitalijus; **Kruusmaa, Maarja**; **Parnell, Kevin Ellis**; **Ristolainen, Asko**; Šakurova, Ilona; Skudra, Māris; Viška, Maija; **Soomere, Tarmo** Proceedings of the Estonian Academy of Sciences 2025 / p. 23-42 : map, ill <https://doi.org/10.3176/proc.2025.1.03>

Fault-tolerant control allocation for a bio-inspired underactuated AUV in the presence of actuator failures : design and experiments

Remmas, Mohamed Walid; Chemori, Ahmed; **Kruusmaa, Maarja** Ocean engineering 2023 / art. 115327, 10 p. : ill <https://doi.org/10.1016/j.oceaneng.2023.115327> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Feasibility study on distributed flow sensing with inertial sensors in aquaculture fish cages

Ristolainen, Asko; **Piho, Laura**; **Kruusmaa, Maarja** Aquacultural Engineering 2022 / art. 102271, 9 p. : ill <https://doi.org/10.1016/j.aquaeng.2022.102271> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Feedback control of a coupled IPMC (Ionic Polymer-Metal Composite) sensor-actuator

Hunt, Andres; Tan, Xiaobo; Chen, Zheng; **Kruusmaa, Maarja** Proceedings of ASME Dynamic Systems Control Conference : California, USA, 12-14.10.2009 2009 / ? p <https://asmedigitalcollection.asme.org/DSCC/proceedings/DSCC2009/48920/485/346423>

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](#)

A fish perspective : detecting flow features while moving using an artificial lateral line in steady and unsteady flow

Chambers, Lily D.; **Ježov, Jaas; Kruusmaa, Maarja** Journal of the Royal Society Interface 2014 / p. 1-13 : ill
<https://doi.org/10.1098/rsif.2014.0467> [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 / [4] p. : ill

A flapped paddle-fin for improving underwater propulsive efficiency of oscillatory actuation

Simha, Ashutosh; Gkliva, Roza; Kotta, Ülle; Kruusmaa, Maarja IEEE robotics and automation letters 2020 / p. 3176-3181
<https://doi.org/10.1109/LRA.2020.2975747> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A flexible fin with bio-inspired stiffness profile and geometry

Salumäe, Taavi; Kruusmaa, Maarja Journal of bionic engineering 2011 / p. 418-428
<https://www.sciencedirect.com/science/article/pii/S1672652911600474>

Flow aided path following of an underwater robot

Jung, David S.; Pott, Peter P.; Salumäe, Taavi; Kruusmaa, Maarja 2013 IEEE International Conference on Robotics and Automation (ICRA) : Karlsruhe, Germany, May 6-10, 2013 2013 / p. 4602-4607 : ill <https://doi.org/10.1109/ICRA.2013.6631231>
[Conference Proceedings at Scopus](#) [Article at Scopus](#)

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 sensing with pressure sensor-based artificial lateral lines : from the laboratory to the field = Veevoolu tajumine rõhusensoritel baseeruvate küljejooneanduritega : laborist välikatseteni

Fuentes-Pérez, Juan Francisco 2019 <https://digi.lib.ttu.ee/i/?12014>

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](#)

Flow-relative control of an underwater robot

Salumäe, Taavi; Kruusmaa, Maarja Proceedings of the Royal Society. A, Mathematical, physical & engineering sciences 2013 / art. 20120671 <https://doi.org/10.1098/rspa.2012.0671> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Flow-sensitive robotic fish : from concept to experiments = Voolutundlik robotkala : ideest katsetusteni

Salumäe, Taavi 2015 https://www.ester.ee/record=b4446456*est

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

Toming, Gert 2017 <https://digi.lib.ttu.ee/i/?7304> https://www.ester.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

From bench to bedside

Arezzo, Alberto; Kruusmaa, Maarja; Mylonas, George IEEE Transactions on Medical Robotics and Bionics 2022 / p. 297 - 299
<https://doi.org/10.1109/TMRB.2022.3172013> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Guest editorial: New boundaries for robotics

Kruusmaa, Maarja; Tan, Xiaobo; Laschi, Cecilia; Fioroni, Paolo; Madhavan, Raj Robotics and autonomous systems 2014 / p. 1-2
<https://doi.org/10.1016/j.robot.2012.12.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hall effect sensor-based low-cost flow monitoring device : design and validation

Egerer, Margit; Ristolainen, Asko; Piho, Laura; Vihman, Lauri; Kruusmaa, Maarja IEEE sensors journal 2024 / 12 p. : ill
<https://doi.org/10.1109/JSEN.2024.3354194> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hirmul robotite ees on suured silmad ja sügavad juured

Kruusmaa, Maarja; Eslas, Urve Postimees 2011 / Arter, lk. 7

Hydraulics of vertical-slot fishways: nonuniform profiles

Fuentes-Pérez, Juan Francisco; Tuhtan, Jeffrey Andrew; Eckert, Mario; Romao, F.; Ferreira, Maria Teresa; **Kruusmaa, Maarja;** Branco, Paulo Journal of hydraulic engineering 2019 / p. 06018020-1 - 06018020-6 : ill [https://doi.org/10.1061/\(ASCE\)HY.1943-7900.0001565](https://doi.org/10.1061/(ASCE)HY.1943-7900.0001565) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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/>

Hydromast : a bioinspired flow sensor with accelerometers

Ristolainen, Asko; Tuhtan, Jeffrey Andrew; Kuusik, Alar; Kruusmaa, Maarja Biomimetic and biohybrid systems : 5th International Conference, Living Machines 2016, Edinburgh, UK, July 19-22, 2016 : proceedings 2016 / p. 510-517 : ill https://doi.org/10.1007/978-3-319-42417-0_55 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

Hydromorphological classification using synchronous pressure and inertial sensing

Ristolainen, Asko; Kalev, Kaia; Tuhtan, Jeffrey Andrew; Kuusik, Alar; Kruusmaa, Maarja IEEE transactions on geoscience and remote sensing 2018 / p. 3222-3232 : ill <https://doi.org/10.1109/TGRS.2018.2795641> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

I paneel. Ülikooli missioon ühiskonnas ning kõrghariduse, teaduspoliitika ja haridusteaduste kestlikkus

Land, Tiit; Valk, Aune; Raidal, Martti; **Kruusmaa, Maarja;** Lauristin, Marju Haridus - meie ühine vastutus : Eesti Haridusfoorum 2018-2020 : ettekannete ja artiklite kogumik 2020 / lk. 36-43 : fot https://www.ester.ee/record=b5397258*est

Identification of reverse-action pairs using reversibility of actions

Gavšin, Juri; Kruusmaa, Maarja 2011 IEEE International Conference on Systems, Man, and Cybernetics (SMC) : Anchorage, AK, USA, October 9-12 2011 / p. 2555-2560 : ill <https://ieeexplore.ieee.org/document/6084061>

Improving area coverage by reversible object pushing

Gavšin, Juri; Kruusmaa, Maarja The 15th International Conference on Advanced Robotics : Tallinn, Estonia, June 20-23, 2011 2011 / p. 415-420 : ill <https://ieeexplore.ieee.org/document/6088579>

An insight on mud behavior upon stepping

Godon, Simon Pierre; Ristolainen, Asko; Kruusmaa, Maarja IEEE robotics and automation letters 2022 / p. 11039-11046 <https://doi.org/10.1109/LRA.2022.3194667> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Intrinsic robot safety through reversibility of actions = Iseeneslik ohutus robotikas tegevuste pööratavuse põhjal

Gavšin, Juri 2011 <https://digi.lib.ttu.ee/7639>

Inverse-model intelligent control of fin-actuated underwater robots based on drag force propulsion

Remmas, Mohamed Walid; Chemori, Ahmed; **Kruusmaa, Maarja** Ocean Engineering 2021 / art. 109883, 19 p. : ill <https://doi.org/10.1016/j.oceaneng.2021.109883> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Investigating Fish Hydrodynamic Sensing : An Integrated Approach Utilizing Numerical and Experimental Methods [Võrguteavik] = Uurimus kalade hüdrodünaamilise tajumise kohta : integreeritud lähenemine, kasutades numbrilisi ja eksperimentaalseid meetodeid

Khan, Ali Hassan 2025 https://www.ester.ee/record=b5729246*est <https://digikogu.taltech.ee/et/Item/01ab1ec5-371a-442e-9564-04042ce64f53> <https://doi.org/10.23658/taltech.8/2025>

Joint estimation of bulk flow velocity and angle using a lateral line probe

Strokina, Nataliya; Kämäräinen, Joni-Kristian; **Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Kruusmaa, Maarja** IEEE transactions on instrumentation and measurement 2016 / p. 601-613 : ill <https://doi.org/10.1109/TIM.2015.2499019> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Kas tehisaru areng toob kaasa robotite imevõimed?

Kruusmaa, Maarja postimees.ee 2025 <https://arvamus.postimees.ee/8205770/maarja-kruusmaa-kas-tehisaru-areng-toob-kaasa-robotite-imevoimed>

Kriiside tekkimine ühiskondliku valiku teel ehk Riikide säilimine olusvõitluses

Kruusmaa, Maarja Arvamus, kultuur : [ajalehe Postimees lisa] 2022 / Lk. 20-21 <https://dea.digar.ee/article/ak/2022/02/12/12.2>

Kruusmaa: meil oli praktikutelt ette antud probleem

Lõugas, Hans; **Kruusmaa, Maarja** Eesti Päevaleht 2013 / lk. 3 <https://epl.delfi.ee/artikkel/67117076/kruusmaa-meil-oli-praktikutelt-ette-antud-probleem>

Kuidas keegi : [küsimustele vastab] Maarja Kruusmaa[a]

Kruusmaa, Maarja Tarkade Klubi 2009 / 5, lk. 78 : portr

Kõva sõna

Kruusmaa, Maarja Postimees 2020 / Lk. 2 https://www.ester.ee/record=b1072778*est

Lahendada tuleks halvim võimalik stsenaarium

Marti Aavik Postimees 2020 / lk. 5 https://www.ester.ee/record=b1072778*est

Legged Locomotion on Soft and Wet Terrains [Võrguteavik] = Jalgadel liikumine pehmel ja märjal maastikul

Godon, Simon Pierre 2025 https://www.ester.ee/record=b5754511*est <https://digikogu.taltech.ee/et/Item/3fa536fe-cad0-47ce-b240-5415fb6ce141> <https://doi.org/10.23658/taltech.48/2025>

Linear modeling of elongated bending EAP actuator at large deformations

Must, Indrek; Anton, Mart; **Kruusmaa, Maarja**; Aabloo, Alvo Proceedings of SPIE 2009 / Electroactive Polymer Actuators and Devices (EAPAD) 2009, p. 728723-1 - 728723-12 : ill https://www.researchgate.net/publication/236115802_Linear_modeling_of_elongated_bending_EAP_actuator_at_large_deformations

A linked manipulator with ion-polymer metal composite (IPMC) joints for soft- and micromanipulation

Kruusmaa, Maarja; Hunt, Andres; Punning, Andres; Anton, Mart; Aabloo, Alvo 2008 IEEE International Conference on Robotics and Automation : Pasadena, CA, 19-23 May 2008. Vols. 1-9 2008 / p. 3588-3593

Low cost anatomically realistic renal biopsy phantoms for interventional radiology trainees

Hunt, Andres; Ristolainen, Asko; Ross, Peeter; Öpik, Rivo; Krumme, Andres; Kruusmaa, Maarja European journal of radiology 2013 / p. 594-600 : ill <https://doi.org/10.1016/j.ejrad.2012.12.020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Lugemiselamus

Kruusmaa, Maarja Horisont 2017 / lk. 61 : ill http://www.ester.ee/record=b1072243*est

Lühike õpetus kriisijuhtidele

Kruusmaa, Maarja Arvamus, kultuur : [ajalehe Postimees lisa] 2023 / Lk. 2-3 <https://dea.digar.ee/article/ak/2023/01/14/2.1>

Maarja Kruusmaa: kõige tõenäolisemalt sureb vaktsiinivastane hoopis südame-veresoonkonnahaigustesse [Võrguväljaanne]

Kruusmaa, Maarja postimees.ee 2022 "[Maarja Kruusmaa: kõige tõenäolisemalt sureb vaktsiinivastane hoopis südame-veresoonkonnahaigustesse](#)"

Maarja Kruusmaa: lühike õpetus kriisijuhtidele

Kruusmaa, Maarja Arvamus, kultuur : [ajalehe Postimees lisa] 2023 / Lk. 2 [Maarja Kruusmaa: lühike õpetus kriisijuhtidele](https://dea.digar.ee/article/ak/2023/01/14/2.1) <https://dea.digar.ee/article/ak/2023/01/14/2.1>

Maarja Kruusmaa: mõtlemine, kas olen piisavalt heal tasemel, ei vii edasi. Tegutseda tuleb!

Vaikmaa, Madis; **Kruusmaa, Maarja** Postimees 2018 / Arter, lk. 2-6 [Arteri suur intervjuu robotikateadlase Maarja Kruusmaaga: mõtlemine, kas olen piisavalt tasemel, ei vii edasi. Tegutseda tuleb](#)

Maarja Kruusmaa: peame kastma neid taimi, mis vilja kannavad

Kruusmaa, Maarja Mente et Manu 2020 / lk. 24-27 : fot <https://dea.digar.ee/cgi-bin/dea?a=is&oid=AKmenteetmanu202011&type=staticpdf>

Maarja Kruusmaa: säilenõtkusesse panustamine tagab ühiskonna toimimise mistahes olukorras

Kruusmaa, Maarja Arvamus, kultuur : [ajalehe Postimees lisa] 2023 / Lk. 3 [Maarja Kruusmaa: säilenõtkusesse panustamine tagab ühiskonna toimimise mistahes olukorras](#)

Maneuvering on non-Newtonian fluidic terrain : a survey of animal and bio-inspired robot locomotion techniques on soft yielding grounds

Godon, Simon Pierre; Kruusmaa, Maarja; Ristolainen, Asko Frontiers in Robotics and AI 2023 / art. 1113881 <https://doi.org/10.3389/frobt.2023.1113881> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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->

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](#)

Mida vinget tõi lõppev aasta tehnikailma? : [2016. aasta olulisematest uuendustest tehnoloogiamailmas : ekspertidena vastavad Gert Jervan, Argo Virkebau, ... Maarja Kruusmaa jt.]

Pau, Aivar Postimees 2016 / lk. 24-25 : ill

Modelling of a biologically inspired robotic fish driven by compliant parts

EL Daou, Hadi; Salumäe, Taavi; Chambers, Lily D.; Megill, William M.; **Kruusmaa, Maarja** Bioinspiration & biomimetics 2014 / p. 1-11 : ill <https://doi.org/10.1088/1748-3182/9/1/016010> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Monitoring of coastal waves and velocities with a robotic platform

Piho, Laura; Egerer, Margit; Gkliva, Roza; Kruusmaa, Maarja; Ristolainen, Asko OCEANS 2024 - Halifax : proceedings 2024 / 5 p <https://doi.org/10.1109/OCEANS55160.2024.10754335> [Conference proceedings at Scopus](#) [Article at Scopus](#)

More than depth : developing pressure sensing systems for aquatic environments

Schletterer, Martin; **Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Kruusmaa, Maarja** HydroSenSoft, International Symposium and Exhibition on Hydro-Environment Sensors and Software : 1-3 March 2017, Madrid, Spain 2017 / p. 1-7 : ill

Motion control architecture of a 4-fin U-CAT AUV using DOF prioritization

Salumäe, Taavi; Chemori, Ahmed; **Kruusmaa, Maarja** IROS 2016 : 2016 IEEE/RSJ International Conference on Intelligent Robots and Systems : October 9-14, 2016, Daejeon Convention Center, Daejeon, Korea 2016 / p. 1321-1327 : ill <https://doi.org/10.1109/IROS.2016.7759218> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Motion control of a hovering biomimetic four-fin underwater robot

Salumäe, Taavi; Chemori, Ahmed; **Kruusmaa, Maarja** IEEE Journal of Oceanic Engineering 2019 / p. 54 - 71 <https://doi.org/10.1109/JOE.2017.2774318> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

A multiplexed FBG based sensor platform for flow and temperature measurements in the Baltic Sea

Dzupalski, A.; Morton, J. A. S.; Papachristou, N.; Maier, R. R. J.; MacPherson, W. N.; **Ristolainen, Asko; Kruusmaa, Maarja;** Reilent, E.; **Suhhova, Irina; Lips, Urmas** Proceedings of SPIE 2023 / art. 1264307-1 : ill <https://doi.org/10.1117/12.2679756> [Conference proceedings at Scopus](#) [Article at Scopus](#)

A multiplexed reconfigurable modular FBG-based sensor platform for flow and temperature measurements in the North Sea

Dzupalski, Adrian; Morton, Jonathan A. S.; Papchristou, Nikolitsa; Maier, Robert R. J.; MacPherson, William N.; **Ristolainen, Asko; Reilent, Enar; Kruusmaa, Maarja;** Wolf, Ben J.; Piri, Primoz; Van Netten, Sietse M.; **Suhhova, Irina; Lips, Urmas;** McFarlane, Nathan; MacLeod, Robert; Hendry, Mark; Sheehy, Jack; Almoghayer, Mohammed; Rojas, Natalia; Davies, Gareth Proceedings of SPIE 2024 / 6 p <https://doi.org/10.1117/12.3031643> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Multiscale change detection in a supraglacial stream using surface drifters

Tuhtan, Jeffrey Andrew; Kruusmaa, Maarja; Alexander, Andreas; **Fuentes-Pérez, Juan Francisco** River Flow 2020 Proceedings of the 10th Conference on Fluvial Hydraulics (Delft, Netherlands, 7-10 July 2020): River Flow 2020, Online, 7-10 July 2020 2020 / p. 1483-1492 <https://doi.org/10.1201/b22619>

A multi-terrain robot prototype with archimedean screw actuators : design, realization, modeling, and control

Gkliva, Roza; Remmas, Mohamed Walid; Godon, Simon Pierre; Rebane, Jaan; Ochs, Kilian; Kruusmaa, Maarja; Ristolainen, Asko IEEE Access 2024 / p. 95820 - 95830 <https://doi.org/10.1109/ACCESS.2024.3426105> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Muutus TalTechi rektoraadis : teadusprorektoriks saab Tiit Lukk, Maarja Kruusmaa pühendub uurimistööle

digi.geenius.ee 2023 [Muutus TalTechi rektoraadis : teadusprorektoriks saab Tiit Lukk, Maarja Kruusmaa pühendub uurimistööle](#)

[Mõtted]

Kruusmaa, Maarja Hallo, Kosmos! Elu mõte / Ingrid Peek 2017 / lk. 27 https://www.ester.ee/record=b4746867*est

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 / p. 84-89 <https://ieeexplore.ieee.org/document/5509431>

Nanoporous carbon-based electrodes for high strain ionomeric bending actuators

Palmre, Viljar; Brandell, Daniel; Mäeorg, Uno; Torop, Janno; **Volobujeva, Olga; Punning, Andres; Johanson, Urmas; Kruusmaa, Maarja; Aabloo, Alvo** Smart materials & structures 2009 / 9, [7] p. : ill

Nonlinear orientation controller for a compliant robotic fish based on asymmetric actuation

Meurer, Christian; Simha, Ashutosh; Kotta, Ülle; Kruusmaa, Maarja 2019 International Conference on Robotics and Automation : ICRA 2019, Palais des Congres de Montreal, Canada, 20-24 May, 2019 / Art. 8793892 ; p. 4688-4694
<https://doi.org/10.1109/ICRA.2019.8793892> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Novel mechanisms of robot locomotion : variable stiffness actuators for underwater and multi-phase environments = Robotite uudsed liikumismehhanismid : muutuva jäikusega täitunud veealustes ja mitmefaasilistes keskkondades

Gkliva, Roza 2023 <https://doi.org/10.23658/taltech.3/2023> <https://digikogu.taltech.ee/et/Item/b1135cd8-02a8-44f8-8b2c-d66d019ea63c>
https://www.ester.ee/record=b5537817*est

Odavrobotika levik muudab lahinguvälja ja relvaturgu

Oidsalu, Meelis Postimees 2023 / Lk. 18-19 <https://dea.digar.ee/article/postimees/2023/11/14/20.1>

On the shoulders of giants : colourful argument trees for academic writing

Kruusmaa, Maarja; Moktefi, Amirouche; Tuhtan, Jeffrey Andrew Diagrammatic representation and inference : 11th International Conference, Diagrams 2020, Tallinn, Estonia, August 24–28, 2020 : proceedings 2020 / p. 520-524 https://doi.org/10.1007/978-3-030-54249-8_48 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Conference proceedings at WOS](#) [Article at WOS](#)

An open 3D CFD model for the investigation of flow environments experienced by freshwater fish

Khan, Ali Hassan; Hussmann, Karla Ruiz; Powalla, Dennis; Hoerner, Stefan; Kruusmaa, Maarja; Tuhtan, Jeffrey Andrew Ecological Informatics 2022 / art. 101652, 12 p. : ill <https://doi.org/10.1016/j.ecoinf.2022.101652> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pandeemia löi uue maailma. Milline see on?

Päärt, Villu postimees 2020 / Lk. 8-9 : ill <https://leht.postimees.ee/6984645/pandeemia-loi-uue-maailma-milline-see-on>
https://www.ester.ee/record=b1072778*est

PHA-based feedback control of a biomimetic AUV for diver following : design, simulations and real-time experiments

Ratas, Mart; Chemori, Ahmed; Kruusmaa, Maarja European Control Conference (ECC) 2022 / p. 503-509
<https://doi.org/10.23919/ECC55457.2022.9838054>

A phantom pig abdomen as an alternative for testing robotic surgical systems : our experience

Ristolainen, Asko; Colucci, Gianluca; Kruusmaa, Maarja ATLA = Alternatives to laboratory animals 2013 / p. 359-367
<https://doi.org/10.1177/026119291304100506> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pressure and inertia sensing drifters for glacial hydrology flow path measurements

Alexander, Andreas; **Kruusmaa, Maarja; Tuhtan, Jeffrey Andrew; Hodson, Andrew J.; Schuler, Thomas V.; Kääb, Andreas** The cryosphere 2020 / p. 1009-1023 <https://doi.org/10.5194/tc-14-1009-2020> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Pressure LaPlacian measurement with a bioinspired fish-shaped lateral line probe

Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Schletterer, Martin; Kruusmaa, Maarja HydroSenSoft, International Symposium and Exhibition on Hydro-Environment Sensors and Software : 1-3 March 2017, Madrid, Spain 2017 / p. 1-6 : ill

Pressure sensitive lateral line for underwater robot = Rõhutundliku küljejoone kasutamine allveerobotil

Ježov, Jaas 2013 https://www.ester.ee/record=b3008502*est

Random forests hydrodynamic flow classification in a vertical slot fishway using a bioinspired artificial lateral line probe

Fukuda, Shinji; **Tuhtan, Jeffrey Andrew; Fuentes-Pérez, Juan Francisco; Schletterer, Martin; Kruusmaa, Maarja** Intelligent Robotics and Applications : 9th International Conference, ICIRA 2016, Tokyo, Japan, August 22-24, 2016 : proceedings. Part II 2016 / P. 297-307 : ill https://doi.org/10.1007/978-3-319-43518-3_29 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

Research: New method maps meltwater flows inside glaciers

Kruusmaa, Maarja news.err.ee 2023 [Research: New method maps meltwater flows inside glaciers](#) [Topology and spatial-pressure-distribution reconstruction of an englacial channel](#)

Research: Robots assist in gaining glimpse of life underwater

Riik kui leiutis

Kruusmaa, Maarja Postimees 2018 / AK, lk. 6 [Maarja Kruusmaa: riik kui leiutis](#)

Robotik, 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

Robotikaprofessor Maarja Kruusmaa teaduse rahastamisest : pole mõtet vahelejäänut peksta, kui süsteem lonkab

Berendson, Risto; **Kruusmaa, Maarja** Õhtuleht 2019 / lk. 2-3 [Robotikaprofessor Maarja Kruusmaa teaduse rahastamisest : pole mõtet vahelejäänut peksta, kui süsteem lonkab](#)

Robotic feet modeled after ungulates improve locomotion on soft wet grounds

Godon, Simon Pierre; Ristolainen, Asko; Kruusmaa, Maarja Bioinspiration and biomimetics 2024 / art. 066009, 12 p. : ill <https://doi.org/10.1088/1748-3190/ad839c> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Robotid saadetakse tööle kohta, kuhu vähesed meist minna tahavad

digi.geenius.ee 2024 [Robotid saadetakse tööle kohta, kuhu vähesed meist minna tahavad](#)

Robotite kaasamine võib töökohti ka juurde luua

Alver, Anne-Mari; **Kruusmaa, Maarja** Eesti Päevaleht 2018 / Tööstus, lk. 28

Robotkala aitab teadlasi mõista päris kalu : [TTÜ biorobotika keskusele eraldati teadusgrant robotkala ehitamiseks : Maarja Kruusmaa kommentaariga]

Nöges, Krööt; Kruusmaa, Maarja Mente et Manu 2009 / 27. aug., lk. 2 : fot https://www.ester.ee/record=b1242496*est

Salmon behavioural response to robots in an aquaculture sea cage

Kruusmaa, Maarja; Gkliva, Roza; Tuhtan, Jeffrey Andrew; Tuvikene, A.; Alfredsen, J.A. Royal Society open science 2020 / art. 191220, 14 p. : ill <https://doi.org/10.1098/rsos.191220> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Scientific language connects - an interview with Maarja Kruusmaa

Kruusmaa, Maarja Eesti Teaduste Akadeemia in words and images 2018 2019 / p. 48-53 : phot https://www.ester.ee/record=b5178522*est

Self-motion effects on hydrodynamic pressure sensing : Part I. Forward-backward motion

Akanyeti, Otari; **Ježov, Jaas; Kruusmaa, Maarja** Bioinspiration & biomimetics 2013 / p. 1-10 : ill <https://doi.org/10.1088/1748-3182/8/2/026001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Sensing drifters for glacial hydrology measurements

Alexander, Andreas; **Kruusmaa, Maarja; Tuhtan, Jeffrey Andrew; Hodson, Andreas J.** Svalbard Science Conference 2019 : book of abstracts 2019 / p. 50 <https://www.forskningsradet.no/contentassets/f464e19d364c40b59170a1956a98e747/book-of-abstracts-ssc2019.pdf>

Shape classification using hydrodynamic detection via a sparse large-scale 2D-sensitive artificial lateral line

Wolf, Ben J.; Pirih, Primož; **Kruusmaa, Maarja; Van Netten, Sietse M.** IEEE Access 2020 / p. 11393 - 11404 <https://doi.org/10.1109/ACCESS.2020.2965316> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Shape control of an anthropomorphic tailoring robot mannequin

Abels, Artur; **Kruusmaa, Maarja** International journal of humanoid robotics 2013 / [16] p <https://doi.org/10.1142/S0219843613500023> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ship wake analysis using an array of nearbed sensors

Kruusmaa, Maarja; Parnell, Kevin Ellis; Ristolainen, Asko; Rätsep, Margus; Soomere, Tarmo Abstracts : [BSSC 2019] 2019 / p. 292 https://www.su.se/polopoly_fs/1.446756.1566224624!/menu/standard/file/abstracts_A5_ny.pdf

Soft fluidic actuator for locomotion in multi-phase environments

Gkliva, Roza; Kruusmaa, Maarja IEEE robotics and automation letters 2022 / p. 10462-10469 <https://doi.org/10.1109/LRA.2022.3192204> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Spatial preferences of Iberian barbel in a vertical slot fishway under variable hydrodynamic scenarios

Fuentes-Pérez, Juan Francisco; Eckert, Mario; Tuhtan, Jeffrey Andrew; Ferreira, Maria Teresa; Kruusmaa, Maarja; Branco, Paulo Ecological engineering 2018 / p. 131-142 : ill <https://doi.org/10.1016/j.ecoleng.2018.10.014> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

State estimation and control for small low-cost autonomous underwater vehicles = Meetodid olekute hindamiseks ja

juhtimiseks soodsa hinnaga autonoomsetele allveerobotitele

Meurer, Christian 2021 https://www.ester.ee/record=b5435482*est <https://digikogu.taltech.ee/et/Item/717111f2-51e3-4176-b0b8-b369064b26a2> <https://doi.org/10.23658/taltech.27/2021>

Statistical methods for ultrasound image segmentation = Ultrahelipiltide segmenteerimine statistiliste meetoditega

Li, Lin 2015 https://www.ester.ee/record=b4526723*est

Subsurface flow path modeling from inertial measurement unit sensor data using infinite hidden Markov models

Piho, Laura; Kruusmaa, Maarja IEEE sensors journal 2022 / p. 621-630 : ill <https://doi.org/10.1109/JSEN.2021.3128838> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Surface vessel localization from wake measurements using an array of pressure sensors in the littoral zone

Rätsep, Margus; Parnell, Kevin Ellis; Soomere, Tarmo; Kruusmaa, Maarja; Ristolainen, Asko; Tuhtan, Jeffrey Andrew Ocean engineering 2021 / art. 109156 <https://doi.org/10.1016/j.oceaneng.2021.109156> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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

Systematic review of fault tolerant techniques in underwater sensor networks

Vihman, Lauri; Kruusmaa, Maarja; Raik, Jaan Sensors 2021 / art. 3264 <https://doi.org/10.3390/s21093264> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tallinna Tehnikaülikooli allveerobot hõlbustab kalakasvatavate tööd [Võrguväljaanne]

Kruusmaa, Maarja novaator.err.ee 2020 / fot [Tallinna Tehnikaülikooli allveerobot hõlbustab kalakasvatavate tööd](#)

TalTech создает роботов для обслуживания канализационных сетей

rus.postimees.ee 2024 [TalTech создает роботов для обслуживания канализационных сетей](#) <https://rus.err.ee/1609441499/taltech-razrabotaet-robotov-dlja-kanalizacionnoj-seti>

TalTechi allveerobot sukeldus lõheluurele

Imeline Teadus 2020 / lk. 21 : fot https://www.ester.ee/record=b2747925*est

TalTechi arengukava 2021-2025 : teadusvaldkonna sihid ja sammud

Kruusmaa, Maarja Mente et Manu 2021 / lk. 20- 23 : fot https://www.ester.ee/record=b1242496*est

TalTechi põdrajalgsel roboti uudis pälvis maailmas tähelepanu

Pärm, Rein postimees.ee 2025 [TalTechi põdrajalgsel roboti uudis pälvis maailmas tähelepanu](#)

TalTechi teadlased saadavad robotid kanalisatsiooni müttama

Imeline Teadus 2024 / lk. 20 : fot https://www.ester.ee/record=b2747925*est

A task-oriented design of a biologically inspired underwater robot

Listak, Madis 2007 http://www.ester.ee/record=b2298234*est

Teadlane vastab : kas robotid võivad muutuda inimestele ohtlikeks? [Võrguväljaanne]

Kruusmaa, Maarja forte.delfi.ee 2020 / video [Teadlane vastab: kas robotid võivad muutuda inimestele ohtlikeks?](#)

Teadlane vastab : kas robotid võtavad tulevikus meie töö ära? [Võrguväljaanne]

Kruusmaa, Maarja Eesti Teaduste Akadeemia : Youtube kanal 2020 / video [Teadlane vastab: kas robotid võtavad tulevikus meie töö ära?](#)

Teadlase kuvand ja usaldusväärsus

Kruusmaa, Maarja Teadus ja ühiskond 2018 / lk. 91-96 : fot

Teadlased löid robotile uue meeleeelundi

Olesk, Arko; **Kruusmaa, Maarja** Postimees 2013 / lk. 6 <https://teadus.postimees.ee/1163870/teadlased-loid-robotile-uae-meeleeelundi>

Teaduskeel on ühendaja - intervjuu Maarja Kruusmaaga

Kruusmaa, Maarja Eesti Teaduste Akadeemia sõnas ja pildis 2018 2019 / lk. 48-53 : fot

The ARROWS project : adapting and developing robotics technologies for underwater archaeology

Allotta, Benedetto; Costanzi, Riccardo; **Kruusmaa, Maarja; Salumäe, Taavi** IFAC-PapersOnLine 2015 / p. 194-199 : ill

<https://doi.org/10.1016/j.ifacol.2015.06.032> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

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>

3D modelling of non-uniform and turbulent flow in vertical slot fishways

Fuentes-Pérez, Juan Francisco; Silva, A.T.; **Tuhtan, Jeffrey Andrew**; Garcia-Vega, Ana; Carbonell Baeza, Ruth; Musall, Mark; **Kruusmaa, Maarja** Environmental modelling & software 2018 / p. 156-169 : ill <https://doi.org/10.1016/j.envsoft.2017.09.011> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Topology and spatial-pressure-distribution reconstruction of an englacial channel

Piho, Laura; Alexander, Andreas; **Kruusmaa, Maarja** The cryosphere 2022 / p. 3669–3683 <https://doi.org/10.5194/tc-16-3669-2022> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

2D estimation of velocity relative to water and tidal currents based on differential pressure for autonomous underwater vehicles

Meurer, Christian; **Fuentes-Perez, Juan Francisco**; Schwarzwald, Kordula; Ludvigsen, Martin; Sorensen, Asgeir Johan; **Kruusmaa, Maarja** IEEE robotics and automation letters 2020 / p. 3444–3451 <https://doi.org/10.1109/LRA.2020.2976318> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Tänavust Robotexi külastas rekordarv robotihuvilisi : [professor M.Kruusmaa kommentaariga]

Soomann, Anna-Liisa; **Kruusmaa, Maarja** HEI = Hea Eesti Idee 2008 / lk. 28-30 : ill

U-CAT for underwater archaeology : turtle-inspired robot operates in tethered and autonomous modes

Kruusmaa, Maarja; **Salumäe, Taavi** Sea technology 2016 / p. 37-40 : ill [https://www.proquest.com/docview/1784047942?](https://www.proquest.com/docview/1784047942?sourcetype=Trade%20Journals)
[sourcetype=Trade%20Journals](#) [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Underwater bioinspired sensing: New opportunities to improve environmental monitoring

Tuhtan, Jeffrey Andrew; **Nag, Saptarshi**; **Kruusmaa, Maarja** IEEE instrumentation & measurement magazine 2020 / p. 30-36
<https://doi.org/10.1109/MIM.2020.9062685> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Underwater confined space mapping by resource-constrained autonomous vehicle

Preston, Victoria; **Salumäe, Taavi**; **Kruusmaa, Maarja** Journal of field robotics 2018 / p. 1122-1148 : ill
<https://doi.org/10.1002/rob.21806> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

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](#)

Underwater robotics is full of opportunities. Estonia has one of Europe's top 15 research teams

Kruusmaa, Maarja Estonian Centre of Excellence in ICT Research 2021 / p. 48-52 : ill <http://www.digar.ee/id/nlib-digar:634779>
https://www.ester.ee/record=b5456158*est

Underwater vehicle speedometry using differential pressure sensors : preliminary results [Online resource]

Fuentes-Pérez, Juan Francisco; **Kalev, Kaia**; **Tuhtan, Jeffrey Andrew**; **Kruusmaa, Maarja** Autonomous Underwater Vehicles 2016 : AUV 2016 : 6-9 November 2016 : IIS, the University of Tokyo, Tokyo, Japan 2016 / p. 156-160 : ill
<https://doi.org/10.1109/AUV.2016.7778664>

Using spectrograms from underwater total pressure sensors to detect passing vessels in a coastal environment

Rätsep, Margus; **Parnell, Kevin Ellis**; **Soomere, Tarmo**; **Kruusmaa, Maarja**; **Ristolainen, Asko**; **Tuhtan, Jeffrey Andrew** Journal of atmospheric and oceanic technology 2020 / p. 1353-1363 : ill <https://doi.org/10.1175/JTECH-D-19-0192.1> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Walking in Mud : Modeling, Control, and Experiments of Quadruped Locomotion

Godon, Simon Pierre; **Prados, Carlos**; **Chemori, Ahmed**; **Ristolainen, Asko**; **Kruusmaa, Maarja** IEEE/ASME Transactions on Mechatronics 2025 / 12 p. : ill <https://doi.org/10.1109/TMECH.2025.3560588>

Whisker-based tactile navigation algorithm for underground robots

Kossas, Tanel; **Remmas, Mohamed Walid**; **Gkliva, Roza**; **Ristolainen, Asko**; **Kruusmaa, Maarja** 2024 IEEE International Conference on Robotics and Automation (ICRA) 2024 / p. 13164-13170 <https://doi.org/10.1109/ICRA57147.2024.10610762> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Üks küsimus : milline on teie jaoks ideaalne ülikool?

Mente et Manu 2020 / lk. 24-25 , 34-35, 44-45 : portr https://www.ester.ee/record=b1242496*est

Маарья Круусмаа : антиваксер, скорее всего, умрет от сердечного приступа [Online resource]
Kruusmaa, Maarja rus.postimees.ee 2022 "[Маарья Круусмаа: антиваксер, скорее всего, умрет от сердечного приступа](#)"