

### **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

### **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 keeleaahind. 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 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](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//?7576> [https://www.ester.ee/record=b4670806\\*est](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](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](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 2012 / p. 5340-5345 : ill [https://www.researchgate.net/publication/254041437\\_A\\_bio-inspired\\_compliant\\_robotic\\_fish\\_Design\\_and\\_experiments](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 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 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 2010 / [7] p.: ill

### **Biorobotik Maarja Kruusmaa : peame valmis olema suurteks muutusteks**

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

### **Biorobotik Maarja Kruusmaa paneb robotid kalade kombel ujuma**

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

### **Biorobotika : hetkeseis ja arengusuunad : avalik loeng 14. mail 2007 TTÜs**

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

### **Byoyancy control of a semiautonomous underwater vehicle for environmental monitoring in Baltic Sea**

**Listak, Madis;** Kruusmaa, Maarja Proc. of the Int. IEEE Conf. Mechatronics and Robotics 2004 : MechRob'04 : Aachen, Germany, 2004. Vol. 2 2004 / p. 252-257  
[https://www.researchgate.net/publication/228404776\\_Buoyancy\\_Control\\_of\\_a\\_Semiautonomous\\_Underwater\\_Vehicle\\_for\\_Environmental\\_Monitoring\\_in\\_Baltic\\_Sea](https://www.researchgate.net/publication/228404776_Buoyancy_Control_of_a_Semiautonomous_Underwater_Vehicle_for_Environmental_Monitoring_in_Baltic_Sea)

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

**Kruusmaa, Maarja;** Rieucau, 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](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 edendamine**

**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](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 <http://dx.doi.org/10.1016/j.ecoleng.2015.10.008>

### **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://www.ester.ee/record=b5657135*est) <https://digikoogu.taltech.ee/et/Item/00a93258-dc0f-4a4d-822f-099fff757224>  
<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 semiautonomous biomimetic underwater vehicle for environmental monitoring**

**Listak, Madis;** Martin, G.; Pugal, David; Aabloo, Alvo; Kruusmaa, Maarja Proceedings of the 2005 IEEE International Symposium on Computational Intelligence in Robotics and Automation : CIRA 2005 : Espoo, Finland, 2005 2005 / ? p <https://ieeexplore.ieee.org/document/1554247>

**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 <http://dx.doi.org/10.5772/60137>

**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

**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** Postimees 2016 / AK, lk. 7 [https://artiklid.einet.ee/record=b2803182\\*est](https://artiklid.einet.ee/record=b2803182*est) <https://teadus.postimees.ee/3876751/maarja-kruusmaa-doktorikraad-annab-juhiloa-mitte-tookoha>

### **Doktorikraad annab juhiloa, mitte töökohta**

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

### **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](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](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](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](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://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](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](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

### **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, 12 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

### **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

### **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

### **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

### **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 <http://dx.doi.org/10.1109/ICRA.2015.7139317>

### **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

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

**Salumäe, Taavi** 2015 [https://www.ester.ee/record=b4446456\\*est](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](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, Otari; 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](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](#)

### **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>

### **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-](https://doi.org/10.1061/(ASCE)HY.1943-)

### **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

### **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](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](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**; **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/i/?639>

### **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](#)

### **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](#)

### **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 Kruusma[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](https://www.ester.ee/record=b1072778*est)

### **Lahendada tuleks halvim võimali stsenaarium**

Marti Aavik Postimees 2020 / lk. 5 [https://www.ester.ee/record=b1072778\\*est](https://www.ester.ee/record=b1072778*est)

### **Light control method for automatic benthic algae recognition**

**Listak, Madis**; Martin, G.; Kruusmaa, Maarja The XVIIIth International Seaweed Symposium : Bergen, Norway, 2004 2004 / p. ?

### **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](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

### **Lugemiselamus**

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

### **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**; **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/10.1088/1748-3190/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](#)

### **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

#### **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 - The International Society for Optical Engineering 2023 / art. 1264307-1 : ill  
<https://doi.org/10.1117/12.2679756> [Conference proceedings at Scopus](#) [Article at Scopus](#)

#### **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>

#### **Muutus TalTechi rektoraadis : teadusprorektoriks saab Tiit Lukk, Maarja Kruusmaa pühendub uurimistöole**

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

#### **[Mõtted]**

**Kruusmaa, Maarja** Hallo, Kosmos! Elu mõte / Ingrid Peek 2017 / lk. 27 [https://www.ester.ee/record=b4746867\\*est](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 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 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 täituriid veelasustes 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](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](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](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](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>

### **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](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](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**

Traks, Kristina news.err.ee 2023 [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](http://www.ester.ee/record=b1072243*est) [https://artiklid.elnet.ee/record=b2811777\\*est](https://artiklid.elnet.ee/record=b2811777*est)

### **Robotikaproffessor Maarja Kruusmaa teaduse rahastamisest : pole mõtet vahelejäänut peksta, kui süsteem lonkab**

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

### **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]**

**Nõges, Krõõt**; **Kruusmaa, Maarja** Mente et Manu 2009 / 27. aug., lk. 2 : fot [https://www.ester.ee/record=b1242496\\*est](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](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

### **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.; Piri, Primoz; **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

### 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](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](#)

[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://www.ester.ee/record=b5435482*est) [https://digikogu.taltech.ee/et/Item/717111f2-51e3-4176-b0b8-](https://digikogu.taltech.ee/et/Item/717111f2-51e3-4176-b0b8-b369064b26a2)

[b369064b26a2](https://doi.org/10.23658/taltech.27/2021) <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](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](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 kalakasvatajate tööd [Võrguväljaanne]

**Kruusmaa, Maarja** novaator.err.ee 2020 / fot [Tallinna Tehnikaülikooli allveerobot hõlbustab kalakasvatajate tööd](https://www.ester.ee/record=b2747925*est)

### 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) [https://rus.err.ee/1609441499/taltech-](https://rus.err.ee/1609441499/taltech-razrabotaet-robotov-dlja-kanalizacionnoj-seti)

[razrabotaet-robotov-dlja-kanalizacionnoj-seti](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](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](https://www.ester.ee/record=b1242496*est)

### TalTechi teadlased saadavad robotid kanalisatsiooni müttama

Imeline Teadus 2024 / lk. 20 : fot [https://www.ester.ee/record=b2747925\\*est](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](http://www.ester.ee/record=b2298234*est)

## **Task-oriented design of an underwater vehicle for environmental monitoring in the Baltic Sea**

**Listak, Madis**; Martin, G.; Pugal, David; Aabloo, Alvo; Kruusmaa, Maarja Proc. of the IWUR2005 International Workshop on Underwater Robotics for Sustainable Management of Marine Ecosystems and Environmental Monitoring : Genoa, Italy, 2005 2005 / ? p

## **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-uee-meeleelundi>

## **Teaduskeel on ühendaja - intervjuu Maarja Kruusmaaga**

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

## **Tehisintellekt ruulib - Robotex 2001 : [esimene robotite võistlus Eestis TTÜ ja TÜ tudengite vahel : intervjuu Mart Tamre ja Maarja Kruusmaaga]**

**Ummelas, Mart; Tamre, Mart; Kruusmaa, Maarja** Mente et Manu 2001 / 13. nov., lk. 1, 4 : fot [https://www.ester.ee/record=b1242496\\*est](https://www.ester.ee/record=b1242496*est)

## **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 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](#)

## **Towards a biomimetic EAP robot**

Anton, Mart; Punning, Andres; Aabloo, Alvo; **Listak, Madis; Kruusmaa, Maarja** Proceedings of TAROS 2004 : Towards Autonomous Systems 2004 / p. ? [https://www.researchgate.net/publication/248127819\\_Towards\\_a\\_biomimetic\\_EAP\\_robot](https://www.researchgate.net/publication/248127819_Towards_a_biomimetic_EAP_robot)

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

**Meurer, Christian; Fuentes-Perez, Juan Francisco; Schwarzwalder, 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

## **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](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](#)

**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>

**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](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](#)"