

Jerome Jouffroy
Institut for Mekanik og Elektronik
CIM - Center for Industriel Mekanik
SDU Mekanik
E-mail: jerome@sdu.dk



Publikationer

Towards Printing Mechatronics: 3D-printed conductive interfacing for digital signals

Popa, A-A., Duggen, L. & Jouffroy, J., jul. 2020, *Proceedings of the 2020 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*. s. 430-435 9159016

3D Printed Hybrid Flexible Electronics with Direct Light Synthesis

Popa, A-A., Zellers, B., Iversen, S., Kennedy, D., Cortes, P., Duggen, L., Jouffroy, J., Rogers, K., Conner, B. & MacDonald, E., 2020, *Advances in Additive Manufacturing, Modeling Systems and 3D Prototyping - Proceedings of the AHFE 2019 International Conference on Additive Manufacturing, Modeling Systems and 3D Prototyping: Proceedings of the AHFE 2019 International Conference on Human Factors and Systems Interaction*. Di Nicolantonio, M., Rossi, E. & Alexander, T. (red.). Springer, s. 83-92 (Advances in Intelligent Systems and Computing, Bind 975).

An Accurate Programmable Pulse Generator for Stepper Actuated Real-Time Control Systems

Ramezani, H., Torbensen, R., Duggen, L. & Jouffroy, J., 24. maj 2019, *Proceedings of the 2019 IEEE International Conference on Mechatronics, ICM 2019*. IEEE, s. 358-363

On-line parameter estimation of reduced-order models for buildings energy dynamics using the modulating function method

Ionesi, A. & Jouffroy, J., 31. jan. 2019, *Proceedings of the 2018 Winter Simulation Conference: Simulation for a Noble Cause*. Rabe, M., Juan, A. A., Mustafee, N., Skoogh, A., Jain, S. & Johansson, B. (red.). IEEE, s. 503-514 (Winter Simulation Conference. Proceedings).

On-line parameter and state estimation of an air handling unit model: Experimental results using the modulating function method

Ionesi, A., Ramezani, H. & Jouffroy, J., 2019, *I: Modeling, Identification and Control*. 40, 3, s. 161-176 16 s.

Towards Printing mechatronics: An optimized battery-powered 3D-printed coupling design

Popa, A. A., Duggen, L. & Jouffroy, J., 2019, *Proceedings of the 2019 IEEE/ASME International Conference on Advanced Intelligent Mechatronics, AIM 2019*. IEEE, s. 418-423 8868575

Distributed coordination of energy-storage capacities in virtual microgrids

Brehm, R., Ramezani, H. & Jouffroy, J., 29. nov. 2018, *2018 European Control Conference (ECC)*. IEEE, s. 1124-1129

Step-height detection for the Umbrella Wheel stair-climber using model prediction

Iversen, S. & Jouffroy, J., 3. sep. 2018, *2018 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*. IEEE, s. 1098-1105

On-line parameter estimation of an Air Handling Unit model: experimental results using the modulating function method

Ionesi, A. & Jouffroy, J., sep. 2018, *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*. IEEE, s. 81-86

Towards Printing Mechatronics: Considerations for 3D-printed conductive coupling

Popa, A-A., Mai, C., Duggen, L. & Jouffroy, J., sep. 2018, *Proceedings of the 2018 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*. IEEE, s. 827-832

Trajectory tracking for autonomous turf-care vehicle using Liouvillian approach

Mai, C., Top, S. & Jouffroy, J., sep. 2018, *Proceedings of the 2018 IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*. IEEE, s. 1438-1443

Covering path generation for autonomous turf-care vehicle

Mai, C., Jouffroy, J., Top, S. & Bjærre, M., 2017, *Proceedings of the 2017 IEEE International Conference on Advanced Intelligent Mechatronics*. IEEE, s. 346-351 8014041

Induction motor model with imbalance and leakage saturation

Armah, K., Duggen, L. & Jouffroy, J., 2017, *Proceedings of the 2017 IEEE International Conference on Advanced Intelligent Mechatronics*. IEEE, s. 1520-1525

Infinite-Dimensional Boundary Observer for Lithium-Ion Battery State Estimation

Hasan, A. & Jouffroy, J., 2017, *I: Energy Procedia*. 141, s. 494-501

Umbrella Wheel - a stair-climbing and obstacle-handling wheel design concept

Iversen, S. & Jouffroy, J., 2017, *Proceedings of the 2017 International Conference on Advanced Mechatronic Systems*. IEEE, s. 312-317

Modeling Induction Motor Imbalances: A Non-DQ Approach

Armah, K., Jouffroy, J. & Duggen, L., 2016, *Proceedings of the IEEE International Conference on Advanced Intelligent Mechatronics*. IEEE Press, s. 769-774

On Convergence of the Unscented Kalman-Bucy Filter using Contraction Theory

Maree, J. P., Imsland, L. & Jouffroy, J., 2016, *I: International Journal of Systems Science*. 47, 8, s. 1816-1827

On the premature convergence of particle swarm optimization

Larsen, R. B., Jouffroy, J. & Lassen, B., 2016, *2016 European Control Conference (ECC)*. IEEE Press, s. 1922-1927

Finite-time simultaneous parameter and state estimation using modulating functions

Jouffroy, J. & Reger, J., 2015, *IEEE Conference on Control Applications*. IEEE, s. 394-399

Online optimization of different objectives in robotic sailing: simulations and experiments

Wrede, D., Adam, J. & Jouffroy, J., 2015, *Proceedings of the IEEE Conference on Control Applications*. IEEE, s. 876-881

Internally actuated autonomous sailing buoy

Jouffroy, J., Paasch, K. & Xiao, L., 25. sep. 2014, Patentnr. PCT/DK2012/050402, 31. okt. 2012, Prioritetsdato 22. sep. 2015, Prioritetsnr. US9139272B2

Modeling and nonlinear heading control for sailing yachts

Xiao, L. & Jouffroy, J., 2014, *I: IEEE Journal of Oceanic Engineering*. 39, 2, s. 256-268 13 s.

Transfer of Assembly Operations to New Workpiece Poses by Adaptation to the Desired Force Profile

Nemec, B., Abu-Dakka, F., Rytz, J. A., Savarimuthu, T. R., Ridge, B., Krüger, N., Petersen, H. G., Jouffroy, J. & Ude, A., 25. nov. 2013, *Advanced Robotics (ICAR), 2013 16th International Conference*. IEEE Press, 7 s.

Development of flexible tactile sensors for hexapod robots

Drimus, A., Børllum-Petersen, M. & Jouffroy, J., 21. jan. 2013, *Proceedings of the 15th International Conference on Mechatronics: Mechatronika 2012*. Maga, D., Stefek, A. & Brezina, T. (red.). Czech Technical University, 7 s.

A convergence result for the unscented Kalman-Bucy filter using contraction theory: 2013 European Control Conference, ECC 2013

Maree, J. P., Imsland, L. & Jouffroy, J., 2013, *2013 European Control Conference, ECC 2013*. IEEE, s. 2134-2139 6669183

On active current selection for Lagrangian profilers

Jouffroy, J., Zhou, Q. & Zielinski, O., 2013, I: Modeling, Identification and Control (Online). 34, 1, s. 1-10 10 s.

Control and guidance of a hovering AUV pitching up or down

Ferreira, B., Jouffroy, J., Matos, A. & Cruz, N., 2012. 6 s.

Further results on tidal stream transport for Lagrangian profilers

Han, D. & Jouffroy, J., 2012.

Nonlinear Robust Heading Control for Sailing Yachts

Xiao, L., Fossen, T. I. & Jouffroy, J., 2012.

Online speed optimization for sailing yachts using extremum seeking

Xiao, L., Alves, J., Cruz, N. & Jouffroy, J., 2012. 6 s.

Towards Heading Control of an Autonomous Sailing Platform through Weight Balancing

He, J., Xiao, L. & Jouffroy, J., 2012.

A control-theoretic outlook at the no-go zone in sailing vessels

Yang, B., Xiao, L. & Jouffroy, J., 2011, *OCEANS 2011, MTS/IEEE*. 7 s.

Modeling and nonlinear heading control for sailing yachts

Xiao, L. & Jouffroy, J., 2011, *OCEANS 2011, MTS/IEEE*. 6 s.

On Motion Planning for Point-to-Point Maneuvers for a Class of Sailing Vehicles

Xiao, L. & Jouffroy, J., 2011, I: Journal of Control Science and Engineering. 2011, s. Article ID 402017 13 s.

Towards Selective Tidal-Stream Transport for Lagrangian profilers

Jouffroy, J., Zhou, Q. & Zielinski, O., 2011, *OCEANS 2011, MTS/IEEE*. IEEE, 6 s.

A tutorial on incremental stability analysis using contraction theory

Jouffroy, J. & Fossen, T. I., 2010, I: Modeling, Identification and Control (Online Edition). 31, 3, s. 93-106 14 s.

On path generation and feedforward control for a class of surface sailing vessels

Xiao, L. & Jouffroy, J., 2010, *55th International Scientific Colloquium (IWK)*. s. 336-341 6 s.

Real-time sail and heading optimization for a surface sailing vessel by extremum seeking control

Treichel, K. & Jouffroy, J., 2010, *55th International Scientific Colloquium (IWK)*. Germany, s. 198-203 6 s.

Reflexions on feedforward control strategies for a class of sailing vehicles

Xiao, L. & Jouffroy, J., 2010, *IFAC Conference on Control Applications in Marine Systems (CAMS 2010)*. Lampe, B. P. (red.). 6 s.

A control strategy for steering an autonomous surface sailing vehicle in a tacking maneuver

Jouffroy, J., 2009, *Proceedings of the IEEE International Conference on Systems, Man, Cybernetics*. IEEE, 6 s.

On algebraic time-derivative estimation and deadbeat state reconstruction

Reger, J. & Jouffroy, J., 2009, *Proceedings of the IEEE Conference on Decision and Control*. IEEE, 6 s.

On steering a sailing ship in a wearing maneuver

Jouffroy, J., 2009. 6 s.

Algebraische Ableitungsschätzung im Kontext der Rekonstruierbarkeit

Reger, J. & Jouffroy, J., 2008, I: Automatisierungstechnik. 6

An extended set-value observer for position estimation using single range measurements

Marcal, J., Jouffroy, J. & Fossen, T. I., 2008.

Proving Identities with Computer Algebra --Example: algebraic time-derivative example

Reger, J. & Jouffroy, J., 2008, *Proceedings of the Annual Meeting of the International Association of Applied Mathematics and Mechanics*.

Underwater navigation using diffusion-based trajectory observers

Jouffroy, J. & Opderbecke, J., 1. apr. 2007, I: IEEE Journal of Oceanic Engineering. 32, 2, s. 313-326 14 s.

Diffusion-Based Trajectory Observers with Variance Constraints

Alcocer, A., Jouffroy, J., Oliveira, P. & Pascoal, A., 2007.

Formation control of marine surface craft: a Lagrangian approach

Ihle, I-A. F., Jouffroy, J. & Fossen, T. I., 1. okt. 2006, I: IEEE Journal of Oceanic Engineering. 31, 4, s. 922-934 13 s.

A simple mechanical system for studying adaptive oscillatory neural networks

Jouffroy, G. & Jouffroy, J., 2006.

An algebraic perspective to single-transponder underwater navigation

Jouffroy, J. & Reger, J., 2006.

Robust combined position and formation control for marine surface craft

Ihle, I-A. F., Jouffroy, J. & Fossen, T. I., 2006.

Robust formation control of marine surface craft using Lagrange multipliers

Ihle, I-A. F., Jouffroy, J. & Fossen, T. I., 2006, *Group Coordination and Cooperative Control*. Pettersen, K. Y., Gravdahl, T. & Nijmeijer, H. (red.). Springer Science+Business Media, (Lecture notes in Control and Information Systems, Bind 336).

Towards station-keeping using GPI controllers

Jouffroy, J., 2006.

Diffusion-based outlier rejection for underwater navigation

Vike, S. & Jouffroy, J., 2005.

Formation control of marine craft using constraint functions

Ihle, I-A. F., Jouffroy, J. & Fossen, T. I., 2005.

Formation control of surface marine craft using Lagrange multipliers

Ihle, I-A. F., Jouffroy, J. & Fossen, T. I., 2005.

Remarks on the observability of single beacon underwater navigation

Jouffroy, J. & Ross, A., 2005.

Some ancestors of contraction analysis

Jouffroy, J., 2005, *44th IEEE Conference on Decision and Control*. IEEE, s. 5450 5455 s.

A trajectory observer for camera-based underwater motion measurements
Berg, T., Jouffroy, J. & Johansen, V., 2004.

Methodological remarks on contraction theory
Jouffroy, J. & Slotine, J.-J. E., 2004.

Nonlinear dynamic positioning of ships with gain-scheduled wave filtering
Torsetnes, G., Jouffroy, J. & Fossen, T. I., 2004.

Nonlinear observer design for a nonlinear string/cable FEM model using contraction theory
Turkyilmaz, Y., Jouffroy, J. & Egeland, O., 2004.

On the combination of nonlinear contracting observers and UGES controllers for output feedback
Jouffroy, J. & Fossen, T. I., 2004.

Towards on-line underwater vehicle trajectory estimation using diffusion-based observers
Jouffroy, J. & Nguyen, T. D., 2004.

Underwater vehicle trajectory estimation using contracting PDE-based observers
Jouffroy, J. & Opderbecke, J., 2004.

A relaxed criterion for contraction theory: application to an underwater vehicle observer
Jouffroy, J., 2003.

A simple extension of contraction theory to study incremental stability properties
Jouffroy, J., 2003.

Real-time geo-referenced video mosaicking with the MATISSE system
Vincent, A-G., Pessel, N., Borgetto, M., Jouffroy, J., Opderbecke, J. & Rigaud, V., 2003.

A remark on "Nonlinear output feedback control of underwater vehicle propellers using feedback from estimated axial flow velocity"
Jouffroy, J. & Lottin, J., 1. okt. 2002, I: IEEE Journal of Oceanic Engineering. 27, 4, s. 873-875 3 s.

A few remarks on some forms of incremental stability (in French)
Jouffroy, J. & Lottin, J., 2002.

Emphasizing interdisciplinarity of control in laboratory courses: illustration with the inverted pendulum
Jouffroy, J. & Lottin, J., 2002.

Integrator backstepping using contraction theory: a brief technological note
Jouffroy, J. & Lottin, J., 2002.

Isolation filter using contraction theory (in French)
Join, C., Jouffroy, J., Ponsart, J-C. & Lottin, J., 2002.

On the use of contraction theory for the design of nonlinear observers for ocean vehicles
Jouffroy, J. & Lottin, J., 2002.

Control design on the basis of approximate nonlinear models: the inverted pendulum example
Jouffroy, J. & Lottin, J., 2000.

Aktiviteter

Technical Committee (TC) on Marine Systems of the International Federation of Automatic Control (IFAC) (Ekstern organisation)

Jerome Jouffroy (Medlem)

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