Bibliographie - bclement.bib

Benoît CLEMENT

May 2, 2024

1 Journal papers

[1] K. Bensafia, A. Mansour, A. Boudraa, S. Haddab, W. Heartle, P. Aries, and B. Clement. Ecg signal monitoring and processing in the operating room. In *Non-Invasive Health Systems based on Advanced Biomedical Signal and Image Processing*. Taylor and Francis Group, 2024.

[2] A. Olivier, C. Hoffmann, S. Jousse-Joulin, A. Mansour, L. Bressollette, and B. Clement. Machine and Deep Learning Approaches Applied to Classify Gougerot-Sjougren Syndrome and Jointly Segment Salivary Glands. *Bioengineering*, 10(11), 2023.

[3] T. Chaffre, P.E. Santos, G. Le Chenadec, E. Chauveau, K. Sammut, and B. Clement. Learning Adaptive Control of a UUV using A Bio-Inspired Experience Replay Mechanism. *IEEE Access*, 2023.

[4] A. Majed, H. Harb, A. Nasser, B. Clement, and O. Reynet. RUN: a robust cluster-based planning for fast self-reconfigurable modular robotic systems. *Intelligent Service Robotics*, 2023.

[5] Y. Sola, G. Le Chenadec, and B. Clement. Simultaneous Control and Guidance of an AUV Based on Soft Actor-Critic. *Sensors*, 22(16), 2022.

[6] G. Fodop, A. Olivier, C. Hoffmann, A. Mansour, S. Jousse-Joulin, L. Bressollette, and B. Clement. Siamese network for salivary glands segmentation. *Intelligent Decision Technologies*, pages 449–457, 2022.

[7] T. Chaffre, J. Moras, A. Chan-Hon-Tong, J. Marzat, K. Sammut, G. Le Chenadec, and B. Clement. Learning-Based vs Model-Free Adaptive Control of a MAV Under Wind Gust. *Informatics in Control, Automation and Robotics*, pages 362–385, 2022.

[8] J.L. Rosendo, D. Monnet, H. De Battista, J. Ninin, B. Clement, and F. Garelli. A global optimization approach for sliding mode tuning and existence maps generation. *International Journal of Dynamics and Control*, October 2020.

[9] Kahina Bensafia, Ali Mansour, Abdel-Ouahab Boudraa, Salah Haddab, Philippe Ariès, and Benoit Clement. Blind separation of ECG signals from noisy signals affected by electrosurgical artifacts. *Analog Integrated Circuits and Signal Processing*, 2020.

[10] A. Majed, H. Harb, A. Nasser, B. Clement, and O. Reynet. Sensing-based Self-Reconfigurable Decision-Making Mechanism for Autonomous Modular Robotic System. *IEEE Sensors Journal*, 2020.

[11] Xiaomin Wang, Benoît Zerr, helene Thomas, Benoit Clement, and Zexiao Xie. Pattern formation of multi-AUV systems with the optical sensor based on displacement-based formation control. *International Journal of Systems Science*, 51(2):348–367, January 2020.

[12] X. Wang, L. Benozzi, B. Zerr, Z. Xie, H. Thomas, and B. Clement. Formation building and collision avoidance for a fleet of NAOs based on optical sensor with local positions and minimum communication. *Science China - Information Sciences*, 2019.

[13] Juan Luis Rosendo, Benoit Clement, and Fabricio Garelli. Experimental validation of constraint mitigation algorithm in underwater robot depth control. *Proceedings of the Institution of Mechanical Engineers, Part I: Journal of Systems and Control Engineering*, 233(3):264–275, 2019.

[14] Philippe Ariès, Kahina Bensafia, Ali Mansour, Benoit Clement, Jean-Louis Vincent, and Ba Vinh Nguyen. Design and Evaluation of a Wireless Electrocardiogram Monitor in an Operating Room. *Anesthesia and Analgesia*, page 1, 2018.

[15] R. Keyetieu, N. Seube, V. Djine, G. Roue, B. Clement, and P. Bosser. Multi-beam echo sounders-INS automatic latency calibration. *Marine Geodesy*, pages 1–17, 2018.

[16] K. Bensafia, A. Mansour, G. Le Maillot, B. Clement, O. Reynet, P. Ariès, and S. Haddab. Wireless based system for continuous electrocardiography monitoring during surgery. *International Journal of Biomedical and Biological Engineering*, 11(10):571 – 577, 2017.

[17] P. Aries, O. Reynet, B. Clement, and V. Nguyen. Another stone to the edifice of wireless anesthesia. *Anesthesia and Analgesia*, 123:1062–1063, 2016.

[18] D. Monnet, J. Ninin, and B. Clement. *Mathematical Aspects of Computer and Information Sciences*, chapter Global Optimization of H_∞ Problems: Application to Robust Control Synthesis Under Structural Constraints, pages 550–554. Springer International Publishing, Cham, 2016.

[19] R. Yang, B. Clement, A. Mansour, M. Li, and N. Wu. Modeling of a complex-shaped underwater vehicle for robust control scheme. *Journal of Intelligent and Robotic Systems*, pages 1–16, 2015.

[20] B. Zerr, L. Jaulin, V. Creuze, N. Debese, I. Quidu, B. Clement, and A. Billon-Coat. *Results of the International Marine Science and Technology Event MOQESM'14*. Springer, 2016.

[21] B. Clement. Robust constraint feasibility by convex optimization and interval analysis. *European Journal of Automation*, 46(4-5):381–395, 2012.

[22] M. Abbas-Turki, G. Duc, and B. Clement. Multiobjective synthesis using LMI formulations for application of the cutting plane algorithm. *European Journal of Control*, 12(1), 2006.

[23] D. Arzelier, B. Clement, and D. Peaucelle. Multi-objective H_2/H_∞/Impulse-to-Peak control of a space launch vehicle. *European Journal of Control*, 12(1), 2006.

[24] M. Abbas-Turki, G. Duc, and B. Clement. Retouche de correcteur multiobjectifs par optimisation convexe : Application au pilotage d'un lanceur spatial. *Journal Européen des Systèmes Automatisés*, 40(9-10), 2006.

[25] B. Clement, G. Duc, and S. Mauffrey. Aerospace launch vehicle control: a gain scheduling approach. *Control Engineering Practice*, 12(3), 2005.

[26] O. Voinot, D. Alazard, P. Apkarian, S. Mauffrey, and B. Clement. A discrete time robust multi-objective synthesis applied to launcher attitude control. *Control Engineering Practice*, 11, 2003.

[27] B. Clement, S. Hbaieb, G. Duc, and S. Font. Parametrisation de Youla : application a la commande robuste par optimisation convexe. *Journal Europeen des Systemes Automatises*, 35(1-2), 2001.

2 Conference papers

[1] C. Wilkinson, L. Grosser, M. Oppert, S. Banks, and B. Clement. Automation at sea and human factors. In *15th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles*, Blacksburg, Virginia, USA, 2024.

[2] H. Behnaz, A. Khosravi, P. Sarhadi, B. Clement, and M. Ali. Learning-based integrated cooperative motion planning and control of multi-auvs. In *15th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles*, Blacksburg, Virginia, USA, 2024.

[3] B. Clement, P. Sarhadi, M. Dubromel, and T. Chaffre. Colsim, a simulator for hybrid navigation acceptability and safety. In *15th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles*, Blacksburg, Virginia, USA, 2024.

[4] D.M. Kaleel, B. Clement, and K. Althoefer. Hydraulic volumetric soft everting vine robot steering mechanism for underwater exploration. In *15th IFAC Conference on Control Applications in Marine Systems, Robotics, and Vehicles*, Blacksburg, Virginia, USA, 2024.

[5] H. Lechene, B. Clement, K. Sammut, P. Santos, A. Cunningham, G. Coppin, and C. Buche. LOTUS: Learning from Operational Teaming with Unmanned Systems. In *IEEE Oceans Conference*, Singapore, 2024.

[6] F. Tavakkoli, P. Sarhadi, and B. Clement. Model Free Deep Deterministic Policy Gradient Controller for Setpoint Tracking of Non-minimum Phase Systems. In *14th United Kingdom Automatic Control Council (UKACC) International Conference on Control (CONTROL 2024)*, Winchester, 2024.

[7] K. Karam, M.R. Khaldi, M. Ammad Uddin, B. Clement, and A. Mansour. A Survey for Unmann ed Aerial Vehicles in Smart Agriculture: Types and Modelling Perspectives. In *IEEE 7th Advanced Information Technology, Electronic and Automation Control Conference (IEEE IAEAC 2024)*, Chongqing, 2024.

[8] K. Lagattu, G. Le Chenadec, E. Artusi, P. Santos, K. Sammut, and B. Clement. DRL-Based Thruster Fault Recovery for Unmanned Underwater Vehicles. In *2024 Australian New Zealand Control Conference (ANZCC)*, 2024.

[9] D.M. Kaleel, B. Clement, and K. Althoefer. A Framework to Design and Build a Height Controllable Eversion Robot. In *11th International Conference on Control, Mechatronics and Automation (ICCMA)*, Norway, 2023.

[10] B. Clement, M. Dubromel, P. Santos, K. Sammut, M. Oppert, and F. Dayoub. Hybrid Navigation Acceptability and Safety. In *AAAI 2023 Fall Symposium Series*, volume 2, pages 11–17, Arlington, United States, October 2023. AAAI.

[11] A. Majed, H. Harb, A. Nasser, and B. Clement. FSET: Fast Structure Embedding Technique for Self-reconfigurable Modular Robotic Systems. In Leonard Barolli, editor, *Advanced Information Networking and Applications*, pages 53–66. Springer International Publishing, 2023.

[12] A. Olivier, C. Hoffmann, A. Mansour, L. Bressollette, and B. Clement. Fusion of images and clinical features for the prediction of pulmonary embolism in ultrasound imaging. In *22nd IEEE Statistical Processing Workshop*, Vietnam, 2023.

[13] A. Haidar, O. Zahwe, A. Nasser, and B. Clement. Path planning algorithms for unmanned aerial vehicle: Classification, performance, and implementation. In *Proc. of the 3rd International Conference on Electrical, Computer, Communications and Mechatronics Engineering (ICECCME)*, Spain, 2023.

[14] H. Kohler, T. Chaffre, G. Le Chenadec, and B. Clement. PID Tuning using Cross-Entropy Deep Learning: a Lyapunov Stability Analysis. In *14th IFAC Conference on Control Application on Marine Systems*, Denmark, 2022.

[15] K. Karam, M.R. Khaldi, M. Ammad Uddin, B. Clement, and A. Mansour. Security Protocols in Drones: Issues and Challenges. In *Security & Protection of Information 2022 (SPI22)*, Grenoble, 2022.

[16] Q. Ferdinand, Q. Oliveau, G. Le Chenadec P. Papadakis, and B. Clement. Attenuating catastrophic forgetting by joint contrastive and incremental learning. In *IEEE / CVF Computer Vision and Pattern Recognition Conference (CVPR)*, New Orleans, 2022.

[17] D. Ioan, J. Ninin, and B. Clement. Nested branch-and-bound algorithm for min-max problems. In *Optimizations Days*, Montreal, 2022.

[18] D.M. Kaleel, B. Clement, and K. Althoefer. Underwater eversion robot growth for underwater operations with an emphasis on underwater mine hunting. In *IEEE UK&I RAS Conference*, UK, 2022.

[19] T. Chaffre, G. Le Chenadec, K. Sammut, E. Chauveau, and B. Clement. Direct Adaptive Pole-Placement Controller using Deep Reinforcement Learning: Application to AUV. In *13th IFAC Conference on Control Application on Marine Systems*, Germany, 2021.

[20] D. Monnet, J. Ninin, and B. Clement. Robust structured H_2 synthesis for linear systems subject to time-invariant uncertainties with global optimization. In *13th IFAC Conference on Control Application on Marine Systems*, Germany, 2021.

[21] A. Olivier, A. Mansour, C. Hoffmann, L. Bressollette, and B. Clement. Survey on machine learning applied to medical image analysis. In *14th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics*, Shanghai, 2021.

[22] Jordan Ninin, Dominique Monnet, and Benoit Clement. Nested branch-and-bound algorithm for minmax problem and constraints with quantifiers. In *EUROPT 2021, the 18th international workshop on continuous optimization*, Toulouse, France, 2021. continuous optimization working group of EURO.

[23] Y. Sola, T. Chaffre, K. Sammut, Gilles Le Chenadec, and B. Clement. Robust guidance and control of autonomous underwater vehicles with deep reinforcement learning. In *IEEE Oceans Conference*, Singapore, 2020.

[24] A. Laidani, M. Bouhamida, M. Benghamen, K. Sammut, and B. Clement. A low-cost test bench for underwater thruster identification. In *12th IFAC Conference on Control Application on Marine Systems*, Daejeon, Korea, 2019.

[25] A.M. Yazdani, K. Sammut, A. Lammas, O.A. Yakimenko, and B. Clement. Cooperative Guidance System for AUV Docking with an Active Free-Floating Docking Station. In *IEEE Oceans Conference*, Marseille, France, 2019.

[26] P. Benet, F. Novella, M. Ponchart, P. Bosser, and B. Clement. State-of-the-art of standalone accurate AUV positioning - application to high resolution bathymetric surveys. In *IEEE Oceans Conference*, Marseille, France, 2019.

[27] R. Yang, Y. Liu, D. Monnet, B. Clement, and A. Mansour. Structured H_∞ regulations applied to auv yaw control. In *IEEE Oceans Conference*, Marseille, France, 2019.

[28] Y. Sola, G. Le Chenadec, K. Sammut, and B. Clement. Auto-tuning PID controller based on machine learning algorithms for robust control of autonomous underwater vehicles. In *IEEE Oceans Conference*, Marseille, France, 2019.

[29] B. Bao, R. Yang, Y. Ma, B. Clement, A. Mansour, D. Hou, and M. Li. Hardware-in-the-loop simulation applied to auv control. In *2018 Chinese Automation Congress*, Xi'an, China, 2018.

[30] Y. Sola, G. Le Chenadec, and B. Clement. Machine learning for robust control of autonomous underwater vehicles. In *Moqesm'18*, Brest, France, 2018.

[31] A. Lefort, J. Ninin, and B. Clement. Depth and pitch control of a submarine : An application of structured H_∞ synthesis method for uncertain models based on interval analysis. In *2018 Australian and New Zealand Control Conference, ANZCC 2018*, Australia, 2018.

[32] A. Lefort, X. Dal Santo, J. Ninin, and B. Clement. Structured H_∞ synthesis method with interval analysis: Application to the robust control of an AUV. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2018)*, Spain, 2018.

[33] A. Lefort, X. Dal Santo, and B. Clement. Autopilot for a marine vessel: a formal proof of robustness and optimal control based on an uncertain model. In *SHARC*, France, 2018.

[34] D. Monnet, J.L. Rosendo, H. Battista, B. Clement, J. Ninin, and F. Garelli. A global optimization approach for non-linear sliding mode control analysis and design. In *IFAC ROCOND*, Brasil, 2018.

[35] J.L. Rosendo, D. Monnet, J. Ninin, F. Garelli, and B. Clement. Control of an autonomous underwater vehicle subject to robustness constraints. In *IFAC ROCOND*, Brasil, 2018.

[36] D. Monnet, J. Ninin, and B. Clement. Optimisation globale de problemes Min-Max: Application a la synthese de loi de commande robuste. In *ROADEF 2018*, France, 2018.

[37] K. Bensafia, A. Mansour, G. Le Maillot, B. Clement, O. Reynet, P. Aries, and S. Haddab. Wireless based system for the continuous electrocardiography monitoring during surgery. In *ICBSAT 2017: International Conference on Biomedical Signal Analysis Technology*, Paris, France, 2017.

[38] D. Monnet, J. Ninin, and B. Clement. A global optimization approach to H_∞ with parametric uncertainties applied to AUV control. In *20th IFAC World Congress*, Toulouse, France, 2017.

[39] X. Wang, B. Zerr, H. Thomas, B. Clement, and Z. Xie. Robust heading control and its application to ciscrea underwater vehicle. In *Proceedings of IEEE MTS Oceans Conference*, 2017.

[40] D. Monnet, J. Ninin, and B. Clement. A global optimization approach to structured regulation design under H_∞ constraints. In *55th IEEE Conference on Decision and Control (CDC)*, Las Vegas, 2016.

[41] D. Monnet, J. Ninin, and B. Clement. Global Optimization of continuous MinMax problem. In *XIII Global Optimization Workshop*, Braga, 2016.

[42] X. Wang, B. Zerr, H. Thomas, B. Clement, and Z. Xie. Pattern formation for a fleet of AUVs based on optical sensor. In *Moqesm'16*, Brest, 2016.

[43] B. Clement, R. Yang, A. Mansour, and M. Li. A modeling and control approach for a cubic AUV. In *10th IFAC Conference on Control Applications in Marine Systems (CAMS'16)*, Trondheim, Norway, 2016.

[44] J.L. Rosendo, B. Clement, and F. Garelli. Sliding mode reference conditioning for path following applied to an AUV. In *10th IFAC Conference on Control Applications in Marine Systems (CAMS'16)*, Trondheim, Norway, 2016.

[45] Benoit Clement. Optimization based control for Robots, solutions for the implementation issue. In *Conference on Software and Hardware Architectures for Robots Control*, Brest, France, 2016.

[46] J.L. Rosendo, D. Monnet, B. Clement, F. Garelli, I. Probst, and J. Ninin. Control of an autonomous underwater vehicle under robustness constraints. In *SWIM: 9th Summer Workshop on Interval Methods*, Lyon, France, 2016.

[47] D. Monnet, J. Ninin, and B. Clement. Global optimization of H_∞ problem: Application to robust control synthesis under structural constraint. In *6th International Conference on Mathematical Aspects of Computer and Information Sciences (MACIS 2015)*, Berlin, Germany, 2015.

[48] J. Ninin, D. Monnet, and B. Clement. Global Optimization based on Contractor Programming. In *8th Small Workshop on Interval Methods*, Prague, Czech Republic, 2015.

[49] B. Clement, D. Monnet, and J. Ninin. H_∞ control synthesis under structural constraints based on Global Optimization. In *Proceedings of EUROPT*, Edinburgh, UK, 2015.

[50] R. Yang, B. Clement, A. Mansour, H.J. Li, and M. Li. Robust heading control and its application to ciscrea underwater vehicle. In *Proceedings of IEEE MTS Oceans Conference*, Genova, Italy, 2015.

[51] R. Yang, B. Clement, A. Mansour, H.J. Li, and M. Li. Invited paper: Robust control application to ciscrea underwater vehicle. In *Proceedings of Symposium on Wireless Sensor and Cellular Networks 2015 (WSCN 2015)*, Tabuk, Saudi Arabia, 2015.

[52] R. Yang, I. Probst, A. Mansour, M. Li, and B. Clement. Underwater Vehicle Modeling and Control Application to Ciscrea Robot. In *Proceedings of MOQESM'14*, Brest, France, 2014.

[53] R. Yang, B. Clement, A. Mansour, H.J. Li, M. Li, and N.L. Wu. Modeling of a complex shaped underwater vehicle. In *Proceedings of the 14th IEEE International Conference on Autonomous Robot Systems and Competitions*, Espinho, Portugal, 2014.

[54] B. Clement. A marine robotics point of view for oceanography. In *Innovation and Blue Growth Symposium*, Qingdao, China, 2013.

[55] R. Yang, J.G. Wang, B. Clement, and A. Mansour. FPGA implementation of a parameterized fourier synthesizer. In *Proceedings of the 20th IEEE Conference on Electronics, Circuits and Systems*, Abu Dhabi, UAE, 2013.

[56] B. Clement. Control algorithms for a sailboat robot with a sea experiment. In *Proceedings of the 9th IFAC Conference on Control Applications in Marine Systems*, Osaka, Japan, 2013.

[57] K. Bruget, B. Clement, O. Reynet, and B. Weber. CAN bus interface board for sailing applications. In *Proceedings of the 5th International Robotic Sailing Conference (Springer Eds.)*, Brest, France, 2013.

[58] R. Yang and B. Clement. Underwater robotic activities in ocean university of china and field programmable gate array (FPGA). In *ICOURS'12 International Conference on Underwater Remote Sensing*, Brest, France, October 2012.

[59] J. Sliwka, B. Clement, and I. Probst. Sea glider navigation around a circle using distance measurements to a drifting acoustic source. In *IEEE/RSJ International Conference on Intelligent Robots and Systems*, Portugal, October 2012.

[60] O. Menage, F. Gaillard, T. Gorgues, T. Terre, P. Rousseaux, S. Prigent, Y. Auffret, L. Dussud, B. Forest, M. Repecaud, L. Jaulin, B. Clement, Y. Gallou, and F. Le Bars. VAIMOS: Voilier autonome instrumente pour mesures oceanographiques de surface. In *Symposium on Vulnerability of coastal ecosystems to global change and extreme events*, Biarritz, France, May, 2011.

[61] J. Sliwka, J. Nicola, R. Coquelin, F. Becket De Megille, B. Clement, and L. Jaulin. Sailing without wind sensor and other hardware and software innovations. In *Proceedings of the 4th International Robotic Sailing Conference*, Luëbeck, Germany, 2011.

[62] M. Abbas-Turki, G. Duc, B. Clement, and S. Theodoulis. Robust gain scheduled control of a space launcher by introducing LQG/LTR ideas in the NCF robust stabilisation problem. In *Proceedings of IEEE Conference on Decision and Control*, New Orleans, USA, 2007.

[63] M. Abbas-Turki, G. Duc, and B. Clement. Multi-objective controller design for a space launcher. In *Proceedings of the European Control Conference*, Greece, July, 2007.

[64] B. Clement. Cross-checking for TVC modelling. In *Proceedings of AMESim users Conference*, Strasbourg, France, 2006.

[65] M. Abbas-Turki, G. Duc, and B. Clement. LMI formulation for the feasibility decision on the time template and stability margins consideration. In *Proceedings of IEEE Conference on Decision and Control*, Sevilla, Spain, 2005.

[66] I. Rongier and B. Clement. Interaction between flight control and general loads on ARIANE 5. In *Proceedings of 6th International Conference on launcher Technology*, Munich, Germany, 2005.

[67] M. Abbas-Turki, G. Duc, and B. Clement. A cutting plane algorithm for frequency domain specification with application to bending modes attenuation. In *Proceedings of 16th IFAC World Congress*, Prague, 2005.

[68] M. Abbas-Turki, G. Duc, and B. Clement. Multiobjective synthesis using LMI formulations for application of the cutting plane algorithm. In *Proceedings of IEEE American Control Conference*, Portland, 2005.

[69] N. Imbert and B. Clement. Launcher attitude control: some answers to the robustness issue. In *Proceedings of 16th IFAC Symposium on Automatic Control in Aerospace*, June, Saint-Petersburg, Russia, 2004.

[70] M. Abbas-Turki, G. Duc, and B. Clement. Robust control of a space launcher by introducing LQG/LTR ideas in the NCF robust stabilisation problem. In *Proceedings of 16th IFAC Symposium on Automatic Control in Aerospace*, Saint-Petersburg, Russia, 2004.

[71] D. Alazard, N. Imbert, B. Clement, and P. Apkarian. Launcher attitude control: additional design and optimization tools, 5th international conference on launcher technology : Missions, control and avionics of space launcher. In *Proceedings of 5th International Conference on Launcher Technology*, Madrid, Spain, November, 2003.

[72] O. Voinot, D. Alazard, and B. Clement. Unstationnary control of a launcher using observer-based structures. In *Proceedings of American Control Conference*, Denver, USA, 2003.

[73] O. Voinot, P. Apkarian, D. Alazard, and B. Clement. Gain scheduling H_∞ control of the launcher in atmospheric flight via linear parametric varying techniques. In *Proceedings of AIAA Guidance Navigation and Control conference*, Monterey, USA, August, 2002.

[74] M. Jeanneau, C. Beugnon, B. Frapard, B. Clement, and A. Biard. An H_∞ control design approach for space vehicles, application to ARIANE 5. In *Proceedings of 5th ESA International Conference on Guidance, Navigation and Control System*, Frascati, Italy, 2003.

[75] O. Voinot, D. Alazard, and B. Clement. Unstationary control of a launcher using observer based structure. In *Proceedings of IEEE Asian Control Conference*, Singapore, June, 2002.

[76] B. Clement and G. Duc. An interpolation method for gain-scheduling. In *Proceedings of IEEE Conference on Decision and Control*, Orlando, USA, 2001.

[77] B. Clement, G. Duc, S. Mauffrey, and A. Biard. Gain scheduling for an aerospace launcher with bending modes. In *Proceedings of 15th IFAC Symposium on Automatic Control in Aerospace*, Bologna, Italy, 2001.

[78] B. Clement and G. Duc. Multiobjective Control via Youla parameterization and LMI optimization: application to a flexible arm. In *Proceedings of IFAC Symposium on Robust Control and Design*, Prague, July, 2000.

[79] B. Clement and G. Duc. A multi-objective control algorithm: application to a launcher with bending modes. In *Proceedings of 8th IEEE Mediterranean Conference on Control on Automation*, Patras, Greece, 2000.

[80] L. Jaulin, B. Clement, Y. Gallou, F. Le Bars, O. Menage, O. Reynet, and J. Sliwka. Suivi de route pour un robot voilier. In *Proceedings of Conférence Internationnale Francophone d'Automatique*, Grenoble, France, July 2012.

[81] N. Brocheton, K. Bruget, A. Wibaux, O. Reynet, B. Clement, and B. Weber. Systeme d'assistance a la navigation handivoile. In *Proceedings of Handicap 2012 : 7eme congres sur les aides techniques pour les personnes handicapees*, Paris, France, June 2012.

[82] O. Voinot, P. Apkarian, and B. Clement. De l'utilisation de la structure estimation/commande pour le pilotage instationnaire d'un lanceur spatial. In *Proceedings of 2ieme Conference Internationale Francophone en Automatique*, Nantes, France, 2002.

[83] J.C. Le Lann, O. Reynet, and B. Clement. JOG : une approche haut niveau des systemes embarques via armadeus et java. In *Journees Nationales des Demontrateurs en Automatique*, Angers, France, 2010.

[84] B. Clement. Condition suffisante de stabilite pour l'interpolation lineaire de correcteurs. In *Proceedings of Journees Doctorales d'Automatique*, Toulouse, France, 2001.

[85] B. Clement and G. Duc. Synthese multicritere par retour de sortie : formulation par lmi. In *Proceedings of Journees Doctorales d'Automatique*, pages 127–131, Nancy, France, 1999.

3 Other contributions

[1] K. Lagattu, B. Clement, P. Santos, G. Le Chenadec, and K. Sammut. DRL-Based Thruster Fault Recovery for Unmanned Underwater Vehicles. In *Intelligent and Interactive Systems seminars*, Australia, 2023.

[2] T. Chaffre, B. Clement, P. Santos, G. Le Chenadec, and K. Sammut. Data-driven maritime autonomy: deriving common sense from bio-inspired machine learning. In *Intelligent and Interactive Systems seminars*, Australia, 2023.

[3] B. Clement. Hybrid (autonomous/nonautonomous) Control Systems for Space Exploration. In *ATSRC Space workshop*, Australia, 2023.

[4] B. Clement. COLREGs : from total Control to Autonomy. In *CROSSING scientific meetings*, Australia, November, 2022.

[5] B. Clement. Maritime Autonomy: from classical control to AI-based control. In *Crossing worshop*, Australia, 2022.

[6] T. Chaffre, B. Clement, K. Sammut, G. Le Chenadec, P. Santos, and E. Chauveau. Learning Stochastic Adaptive Control using a Bio Inspired Experience Replay. In *Crossing Seminar*, Australia, 2022.

[7] B. Clement, A. Arnold, and G. Coppin. COCHON : COoperative Control for Hazardous Occurrences in Navigation. In *Cormorant workshop*, France, 2021.

[8] B. Clement. Optimization based control for Robots. In *australian Institute of Machine Learning (AIML)*, Australia, December, 2018.

[9] K. Bruget, B. Clement, O. Reynet, and B. Weber. The disabled set sail. *CAN Newsletter*, 2:8–13, 2014.

[10] B. Huard, B. Clement, and O. Reynet. 3i: Intergrated coastal zone management via Increased situational awareness through Innovations on uas. In *GT UAV*, Paris, France, 2014.

[11] L. Jaulin, S. Ibn, V. Drevelle, O. Menage, B. Zerr, B. Clement, and T. Terre. Cooperative control, sailboats and underwater robots. In *Innorobo2013*, Lyon, France, March 2013.

[12] B. Clement. Robotique marine, vecteur support à la mesure : exemples de robots experimentaux. In *Workshop on Vehicules de Surfaces Autonomes*, Brest, France, June 2012.

[13] J. Sliwka, B. Clement, and I. Probst. Sea glider navigation around a circle using distance measurements to a drifting acoustic source using interval methods. In *SWIM 2012: Small Workshop on Interval Methods*, Oldenburg, Germany, June 2012.

[14] B. Clement. Robotique et nautisme : exemples et perspectives. In *Journees Nautisme et Recherche - Pole Mer Bretagne*, Brest, 2011.

[15] B. Clement. Calcul par intervalles et optimisation convexe pour le probleme de RCF (robust constraint feasibility). In *GdR MACS, Journées du GT MOSAR*, Paris, France, 2011.

[16] B. Clement. Interval Tools and Convex Optimization For Robust Constraint Feasibility. In *3rd Small Workshop on Interval Methods*, Nantes, France, 2010.

[17] P. Miramont and B. Clement. De la loi de pilotage Ariane 5 à son implementation. In *Seminaire des CCT du CNES*, Toulouse, France, 2005.

[18] M. Abbas-Turki, G. Duc, and B. Clement. Analyse de faisabilite d'un cahier des charges et synthese d'un correcteur par l'algorithme du plan coupant. In *Reunion du GdR MACS - Methodes et Outils pour la Synthese et l'Analyse en Robustesse*, Paris, France, 2005.

[19] B. Clement. Robust control with LMI optimisation for some space applications. In *Workshop on Linear Matrix Inequalities in Control*, Toulouse, France, 2004.

[20] B. Clement and G. Duc. Synthese multicritere utilisant la parametrisation de Youla et l'optimisation convexe. In *Conception de Commandes Robustes*. Hermes, 2002.

[21] Collectif Service Automatique E. Boillot. *Asservissements et régulations continus. Analyse et synthèse. Problèmes avec solutions*. Éditions Technip, 2000.

[22] B. Clement. Utilisation de la parametrisation de Youla pour la commande. In *Seminaire du Groupe Commande Robuste des Systemes Multivariables*, Lyon, France, 2000.

4 Academics

[1] B. Clement. *Synthese multiobjectifs et sequencement de gains: application au pilotage d'un lanceur spatial*. PhD thesis, Supelec, Universite Paris XI Orsay, 2001.

[2] B. Clement. *Commande Robuste et Contraintes d'Optimisation*. Habilitation à diriger des recherches, ENSTA Bretagne, Universite Bretagne Occidentale, 2015.