

## Références

- [1] A. Moulichon, **M. Alamir**, V. Debusschere, L. Garbuio and N. Hadjsais *Polymorphic Virtual Synchronous Generator : An Advanced Controller for Smart Inverter*. **Energies**, to appear 2023.
- [2] Xuan-Huy Pham, **M. Alamir** and F. Bonne *On the Use of Gradient-Based Solver and Deep Learning Approach in Hierarchical Control : Application to Grand Refrigerators*. **Cybernetics and Systems**, (Taylor & Francis), to appear 2023.
- [3] H. Meghnooudj, B. Robu and **M. Alamir** *Sparse Dynamical Features generation, application to Parkinsons Disease diagnosis*. **International Scientific Journal Engineering Applications of Artificial Intelligence**, to appear 2023.
- [4] K. Moussa, B. Aubouin-Parault, **M. Alamir** and T. Dang *Data-based extended moving-horizon estimation for MISO anesthesia dynamics*. **IEEE Control System Letters (L-CSS)**, Vol. 7, pp. 3054-3059, 2023.
- [5] **M. Alamir** *Learning-Based sensitivity analysis and feedback design for drug delivery of mixed therapy of cancer in the presence of high model uncertainties*. **Journal of Theoretical Biology**, To appear in 2023.
- [6] F. Boyer, V. Lebastard, F. Candelier, F. Renda and **M. Alamir** *Statics and dynamics of continuum robot based on Cosserat rods and optimal control theories*. **IEEE Transactions on Robotics**, Vol. 39, Issue 2, pp 1544-1562, 2023.
- [7] K. Moussa, M. Fiacchini and **M. Alamir** *Probabilistically certified region of attraction of a tumor growth model with combined chemo and immunotherapy*. **International Journal of Robust and Nonlinear Control**, to appear 2022.
- [8] **M. Alamir** *Learning against uncertainty in control engineering*. **Annual Reviews in Control**, Vol 53, pages 19-29, 2022.
- [9] **M. Alamir** *Partial extended observability certification and optimal design of moving horizon estimators*. **IEEE Transactions on Automatic Control.**, Volume 67, Issue 7, Pages 3663-3669, July 2022.
- [10] Xuan-Huy Pham, **M. Alamir**, F. Bonne and P. Bonnay *Revisiting a fixed-point hierarchical control design for cryogenic refrigerators under constraints, nonlinearities and real-time considerations*. **European Journal of Control**, Vol 36, pp 82-96, January, 2022
- [11] K. Moussa, M. Fiacchini, **M. Alamir** *Robust domain of attraction estimation for a tumor growth model*. **Journal Applied mathematics and Computation**, to appear in 2021.
- [12] B. Guo, S. Bacha, **M. Alamir** and J. Pouget *A Phase-locked loop using ESO-based loop filter for grid-connected converter : performance analysis*. **Journal of Control Theory and Technology**, Vol 19(1),pp. 49-63, 2021.
- [13] D. Collet, **M. Alamir**, D. Di Domenico, G. Sabiron *Data-driven fatigue-oriented MPC applied to wind turbines Individual Pitch Control*. **Renewable Energy**, Vol. 170, pages 1008-1019, 2021.
- [14] M. Fiacchini and **M. Alamir** *Ockham's razor applied to COVID-19 model fitting French data*. **Annual Reviews in Control**. Vol. 51, pages 500-510, 2021.
- [15] **M. Alamir** and G. Pannocchia *A new formulation of Economic Model Predictive Control without terminal constraint*. **Automatica**. Vol. 125, 2021 (<https://doi.org/10.1016/j.automatica.2020.109420>).
- [16] B. Guo, A. Mohamed, S. Bacha, **M. Alamir**, C. Boudinet and J. Pouget *Reduced Scale Models of Variable Speed Hydro-Electric plants for power Hardware-In-The-Loop Real-Time Simulations* **Energies**. To appear in 2021.
- [17] A. Moulichon, **M. Alamir**, V. Debusschere, Garbuio, M. A. Rahmani, M. X. Wang and N. Hadjsaid *Observer-based current controller for virtual synchronous generator in presence of unknown and unpredictable loads* **IEEE Transactions on Power Electronics**. Volume 36, Issue 2, pages 1708-1716, 2021.
- [18] A. T. Mohamed, **M. Alamir** and Q. Alloin *Generic Modeling and Speed Control Approach of Hydraulic Power Plants : Start-up Operating Mode* **Renewable Energy (Elsevier)**. To appear, 2020.

- [19] B. Guo, S. Bacha, **M. Almir**, A. Hably and C. Boudinet *Generalized Integrator-Extended State Observer with Applications to Grid-connected Converters in Presence of Disturbances*. **IEEE Transactions on Control Systems Technology**. Vol. 29, Issue 2, pages : 744-755, 2020.
- [20] **M. Almir** *On the use of supervised clustering in stochastic NMPC design*. **IEEE Transactions on automatic control**. Volume 65, Issue, 12, pp. 5392-5398, December 2020.
- [21] K. M. M. Rathai, O.Sename and **M. Almir** *GPU-based parametrized NMPC scheme for control of half car vehicle with semi-active suspension system* **IEEE Control Systems Letters**. Vol. 3, Issue 3, pages 631-636, 2019
- [22] B. Guo, S. Bacha, **M. Almir**, A. Mohamed and C. Boudinet *LADRC applied to variable speed hydro-electric plants : experimental validation*. **Control Engineering Practice**. Vol. 85, pages 290-298, 2019
- [23] R. Riah, M. Fiacchini and **M. Almir** *Iterative method for estimating the robust domains of attraction of nonlinear systems : Application to cancer chemotherapy model with parametric uncertainties*. **European Journal of Control**. Vol. 47, pages 64-73, 2019.
- [24] **M. Almir**, M. Fiacchini, I. Queinnec, S. Tarbouriech and M. Mazerolles *Feedback law with probabilistic certification for propofol-based control of BIS during anesthesia* **international Journal of Robust and Nonlinear Control**. Volume 28, Issue 18, pages 6254-6266, 2018.
- [25] H. Ha, J. S. Welsh and **M. Almir** *Useful redundancy in parameter and time delay estimation for continuous model*. **Automatica** Volume 95, September, pp. 455-462, 2018.
- [26] S. Ben Chabane, **M. Almir**, M. Fiacchini, R. Riah, T. Kovaltchouk and S. Bacha *Electricity grid connection of a tidal farm : an active power control framework constrained to grid-code requirements*. **IEEE Transactions on Sustainable Energy**. Vol. 9, issue 4, pages 1948-1956. 2018.
- [27] **M. Almir** *Stability proof for nonlinear MPC design using monotonically increasing weighting profiles without terminal constraints*. **Automatica (Elsevier)**. Vol. 87, pp. 455-459 in 2018.
- [28] P. Pflaum, **M. Almir** and M. Y. Lamoudi *Probabilistic energy management strategy for electric vehicle charging stations using randomized algorithms*. **IEEE Transactions on Control Systems Technology**. Vol. 26, Issue 3, pp. 1099-1106, 2018
- [29] K. Hilal, **M. Almir** *DiagSign une méthode innovante pour la Génération Automatique de Features appliqué a l'Industrie 4.0. Les data révèlent-t-elles toute l'information cachée ?* **Telecom**. Vol 187, 2017.
- [30] **M. Almir**, P. Bonnay, F. Bonne and V. V. Trinh *Fixed-point Based Hierarchical MPC Control Design For a Cryogenic Refrigerator* **Journal of Process Control (Elsevier)**. Vol 58, pages 117-130, 2017.
- [31] P. Pflaum, **M. Almir** and M. Y. lamoudi *Battery Sizing for PV power plants under regulations using randomized algorithms*. **Renewable Energy (Elsevier)**. Vol 113, pages 596-607, 2017
- [32] A. Dogadov, **M. Almir**, Ch. Serviere and F. Quaine *The Biomechanical model of the long finger extensor mechanism and its parametric identification*. **Journal of Biomechanics (Elsevier)**. Vol. 58, pages 232-236, 2017.
- [33] F. Bonne, **M. Almir** and P. Bonnay *Experimental investigation of control updating period monitoring in Industrial PLC-based Fast MPC : Application to The Constrained Control of a Cryogenic Refrigerator*. **Journal of Control Theory and Technology**. Vol. 15, Number 2, pages 92-108, 2017
- [34] H. Mesnage, **M. Almir**, N. Perrissin-Fabert, Q. Alloin *Nonlinear Model-Based Control for Minimum-Time Start of Hydraulic Turbines* **European Journal of Control**. Vol 34, pages 24-30, 2017
- [35] **M. Almir** *A New Contraction-Based NMPC Formulation Without Stability-Related Terminal Constraints*. **Automatica**. Vol 75, pp. 288-292, 2017
- [36] **M. Almir** *A state-dependent updating period for certified Model Predictive Control*. **IEEE Transactions on Automatic Control**. Vol 62, Issue 5, pages 2464-2469. 2017
- [37] J. Etay, A. Diarra, A. Gagnoud, Ch. Garnier, S. Massucci, **M. Almir**, A. Sulpice and S. Rivoirad *Measuring thermal conductivity and heat capacity of molten metallic alloys by electromagnetic levitation in a DC field* **Magnetohydrodynamics**, Vol 53, Issue 2, pages 289-298, 2017

- [38] **M. Almir** *On Probabilistic Certification of Combined Cancer Therapies Using Strongly Uncertain Models* **Journal of Theoretical Biology (Elsevier)**, vol. 384, pages 59-69, 2015
- [39] **M. Almir**, M. A. Rahmani and D. Gualino *Generic Model Identification Framework For Thermodynamic Engines For Use in Hybrid Power Stations Control and Simulation* **Journal of Process Control (Elsevier)**, Volume 24, Issue 6, pages 966-974 2014
- [40] F. Bonne, **M. Almir** and P. Bonnay *Nonlinear observers of the thermal loads applied to the helium bath of a cryogenic Joule-Thompson Cycle.* **Journal of Process Control (Elsevier)**, Vol 24, Issue 3, 2014
- [41] **M. Almir**, M. A. Rahmani and D. Gualino *Constrained Control Framework For A Stand-Alone Hybrid (Stirling Engine)/Supercapacitor Power Generation System* .**Applied Energy (Elsevier)**, Vol 118, Issue 1, pages 192-206, 2014.
- [42] N. Laouti, S. Othman, **M. Almir** and N. S. Othman *Combination of Model-Based Observer and Support Vector Machine For Fault Detection of Wind Turbine.***International Journal of Automation and Computing.** (To appear in 2014)
- [43] **M. Almir**, *Robust Feedback Design For Combined Therapy Of Cancer* **Optimal Control, Applications and Methods.** Vol 35, Issue 1, pp 77-88 (2014)
- [44] A. Murilo, **M. Almir** and D. Alberer *A General NMPC Framework for a Diesel Engine Air Path* **International Journal of Control** (to appear 2014)
- [45] **M. Almir**, D. Alberer and L. Del Re *Identification of a Class of Nonlinear Dynamic Relationships : Application to the Identification of Emission Models in Diesel Engines* **International Journal of Engine Research** Vol. 15, pages 898-905, 2014.
- [46] **M. Almir**, E. Witrant, G. Della Valle, O. Rouaud, Ch. Josser and Lionel Boillereaux *Estimation of energy saving thanks to a reduced-model-based approach : example of bread baking by jet impingement* **Energy (Elsevier)** Vol 53, pages 74-82 (2013)
- [47] T. Coulot, E. Lauga, J. M. Fournier, **M. Almir** and F. Hasbani *Stability Analysis and Design Procedure of Multi-loop Linear LDO Regulators via State Matrix Decomposition* **IEEE Transactions on Power Electronics**, Vol 28, No 11, 2013.
- [48] **M. Almir**, *A New Identification Framework For Off-Line Computation of Moving-Horizon-Observers* **IEEE Transactions on Automatic Control**, Vol 58, Issue 7, 2013.
- [49] O. Omar and **M. Almir** *On the use of partial explicit inversion maps in moving-horizon observers : Application to the estimation problem in E-Coli cultures.* **Journal Européen des Systèmes Automatisés.** Vol 46- Number 2-3, 2012
- [50] **M. Almir** *A Framework for Real-Time Implementation of Low-Dimensional Parameterized NMPC* **Automatica.** Vol 48, pp. 198-204, (2011)
- [51] F. Clavel, **M. Almir**, P. Bonnay, A. Barraud, G. Bornard and C. Deschildre *Multivariable Control Architecture For a Cryogenic Test Facility Under High Pulsed Loads : Model Derivation, Control Design and Experimental Validation* **Journal of Process Control.** Vol 21, Issue 7, pp. 1030-1039 (2011)
- [52] N. Sheibat-Othman, S. Othman, O. Boyron and **M. Almir** *Multivariable control of the polymer molecular weight in emulsion polymerization processes* **Journal of Process Control.** Vol 21, pp. 861-873, (2011)
- [53] Murilo A., **M. Almir**, D. Alberer *Real-Time Implementation of An NMPC Output Feedback Scheme For Diesel Engines* **Oil and Gas Science and Technology, Vol 66, No 4, pp. 613-627 (2011)**
- [54] Boillereaux L., **M. Almir**, S. Curet, O. Rouaud et P. Bellemain *Estimation of the temperature field during Microwave tempering with unknown dielectric properties using CLPP : A generic user-friendly software sensor* **Innovative Food Science & Emerging Technologies (Elsevier).** Vol 12. Issue 3, pp. 288-297, (2011)
- [55] **Almir M.**, J. S. Welsh and G. C. Goodwin *Synaptic Plasticity-Based Model For Epileptic seizures* **Automatica (Special Issue on Systems Biology).** Vol 47. pp. 1183-1192, 2011
- [56] **Almir M.** *A Fixed point method for the implementation of constrained NMPC to PDE's : Application to the constrained stabilisation of the Kuramoto-Shivashinsky nonlinear PDE's.* **Journal Européen des Systèmes Automatisés (in French), Vol 45/7-10 - pp. 693-713 (2011)**
- [57] **Almir M.**, N. Sheibat-Othman and S. Othman *Measurement Based Modeling and Control of Bimodal Particle Size Distribution in Batch Emulsion Polymerization.* **AIChE Journal, Vol. 56, No 8, pp. 2122-2135 (2010).**
- [58] Chareyron S. and **Almir M.** *Model-free feedback design for mixed cancer therapy* **Biotechnology Progress, Vol 25, No 3, pp. 690-700 (2009).**

- [59] **Alamir, M.** and J. S. Welsh and G. C. Goodwin *Redundancy vs multiple starting points in nonlinear systems related inverse problems* **Automatica**, Vol 45, pp 1052-1057 (2009).
- [60] Chareyron S. and **Alamir, M.** *Mixed immunotherapy and chemotherapy of tumors : Feedback design and model updating schemes* ”**Journal of Mathematical Biology**, Vol 258, Issue 3, pp. 444-454” (2009).
- [61] **Alamir, M.** and Murilo, A. *Swing-up and stabilization of a Twin-Pendulum under state and control constraints by fast NMPC scheme* ”**Automatica**, vol 44, pp. 1319-1324” (2008).
- [62] **Alamir, M.** and Sheibat-Othman, N. and Othman, S. *On the use of Nonlinear Receding Horizon Observers in Batch Terpolymerization Reactors.* ”**International Journal of Modeling, Identification and Control**, Vol 4, No 1” (2008).
- [63] Boyer, F. and **Alamir, M.** *Further results on the accessibility of a satellite with two reaction wheels* **Journal of Guidance, Control, and Dynamics**. Vol 30 (2) 2007.
- [64] **Alamir, M.** ; Sheibat-Othman, N. and Othman, S. *Constrained Nonlinear Predictive Control for maximizing Production in Polymerization Processes.* **IEEE Transactions on Control Systems Technology**, Vol 15, No 2, March, 2007.
- [65] Commault, C. and **Alamir, M.** *On the reachability in arbitrary time for positive continuous linear systems* **Systems & Control Letters**. Vol 56, Issue 4, pp 272-276 (2007).
- [66] Wittrant, E. and Canudas-de-wit, C. and Georges, D. and **Alamir, M.** *Remote stabilization via communication network with a distributed control law* **IEEE Transactions on Automatic Control**, Vol 52, pp. 1480-1485, 2007.
- [67] **Alamir, M.** and Chareyron, S. *State Constrained Optimal Control Applied to Cell-Cycle-Specific cancer Chemotherapy* ”**Optimal Control Applications and Methods**”, Vol 28, Issue 3, pp 175-190 (2007).
- [68] Chemori, A. & **Alamir, M.** (2006) *Multi-step limit cycle generation for Rabbit’s walking based on a nonlinear low dimensional predictive control scheme* **International Journal of Mechatronics**, Vol 16/5 pp 259-277 (2006)
- [69] Attia, S. A., **Alamir, M.** & C. Canudas de Wit (2006) *Voltage Collapse Avoidance in Power Systems : A Receding Horizon Approach* **International Journal on intelligent automation and soft computing**. Vol 12. Special issue on ”intelligent automation in power systems.
- [70] **Alamir, M.** (2006) *A benchmark for optimal control problem’s solvers for hybrid nonlinear systems* **Automatica**, Volume 42, Issue 9, pp 1593-1598
- [71] Boyer, F. **Alamir, M.** Chablat, D. Khalil, W. Leroyer, A. and Lemoine, Ph. (2006) *Robot Anguille sous marin en 3D* **Revue ”techniques de l’ingénieur”**, Vol. S7856, pp 1-16 (2006).
- [72] **Alamir, M.** and Ibrahim, F. and Corriou, J. P. (2005) *A flexible nonlinear model predictive control scheme for quality / performance handling in nonlinear SMB chromatography* **Journal of process control** Volume 16, Number 4, pp. 333-344
- [73] Corriou, J. P. and **Alamir, M.** (2005) *A hybrid nonlinear state observer for concentration profiles reconstruction in nonlinear simulated moving bed* **Journal of process control** Volume 16, Number 4, pp. 345-353, 2005.
- [74] Chemori, A. & **Alamir, M.** (2005) *Limit cycle generation for a class of nonlinear systems with jumps using a low dimensional predictive control* **International Journal of Control**, Vol 78, Issue 15, pp 1206-1217
- [75] **Alamir, M.** (2004) *New path generation based receding horizon formulation for constrained stabilisation of nonlinear systems* **Automatica**. Volume 40, Issue 4, pages 647-652 (2004)
- [76] Marchand, N. & **Alamir, M.** (2003) *Discontinuous Exponential Stabilisation of Chained Form Systems.* **Automatica**. Vol 39, pp 343-348
- [77] Marchand, N. & **Alamir, M.** (2003) *Numerical stabilization of a rigid spacecraft with two actuators.* **Journal of Dynamic Systems, Measurement, and Control**. vol. 125, no. 3, pp. 489-491.
- [78] **Alamir, M.** & Corriou, J. P. (2003) *Nonlinear Receding-horizon state estimation for dispersive adsorption columns with nonlinear isotherm.* **Journal of Process Control**. Vol 13, Number 6, pp 517-523
- [79] **Alamir, M.** & F. Boyer (2003) *Fast generation of attractive trajectories for an under-actuated satellite : Application to feedback control design.* **Journal of Optimization & Engineering** Vol 4. pp 215-230
- [80] **Alamir, M.** & S. A. Attia (2003) *Discussion on the paper ”An Optimal Control Approach for Hybrid Systems.”* **European Journal of Control**. Vol. 9, pp 459-460
- [81] **Alamir, M.** and N. Marchand (2003) *Constrained minimum-time-oriented feedback control for the stabilization of nonholonomic systems in chained form* **Journal of Optimization theory and applications**. Vol 118, No 2, pp 229-244
- [82] **Alamir, M.** & Balloul, I. & Marchand, N. (2002) *Robust stabilization of nonlinear systems by discontinuous dynamic state feedback* **International Journal Control**. Vol 75, No 6, pp 421-433

- [83] [Alamir, M.](#), L. Calvillo-Corona (2002) *Further results on nonlinear receding-horizon observers* **IEEE Trans. on Automatic Control**, Volume 47, No 7, pp. 1188-1193
- [84] [Alamir, M.](#) (2002) *Sensitivity analysis in simultaneous state/parameter estimation for induction motors* **International Journal of Control**. Vol 75, No 10, pp. 753-758
- [85] [Alamir, M.](#) (2001) *Solutions of Nonlinear Optimal and Robust Control Problems via a Mixed Collocation/DAE's Based Algorithm* **Automatica**. Volume 37, Issue 7, pp. 1109-1115
- [86] [Alamir, M.](#) (2001) *Nonlinear Receding Horizon sub-optimal Guidance Law for minimum interception time problem.* **Control Engineering Practice**. Volume 9, Issue 1, 107-116.
- [87] [Alamir, M.](#) (1999) *Optimization Based Nonlinear Observers Revisited.* **International Journal of Control** 72, No 13, 1204-1217
- [88] [Alamir, M.](#) & Marchand, N. (1999) *Numerical Stabilization of Nonlinear Systems -Exact Theory and Approximate Numerical Implementation.* **European Journal of Control** 5, 87-97
- [89] [Alamir, M.](#) & Balloul, I. (1999) *Robust Constrained Control Algorithm for General Batch Processes.* **International Journal of Control** 72, No 14, 1271-1287
- [90] [Alamir, M.](#) & Bornard, G. (1996) *Globally stabilizing discontinuous feedback law for a class of nonlinear systems.* **European Journal of Control** 2, 44-50
- [91] [Alamir, M.](#) & Bornard, G. (1995) *Stability of a truncated infinite constrained receding horizon scheme : The general nonlinear case.* **Automatica** 31, No 9, 1353-1356
- [92] [Alamir, M.](#) & Bornard, G. (1994) *On the stability of receding horizon control of nonlinear discrete-time systems.* **Systems & Control Letters** 23, 291-296
- [93] Etay, J., M. [Alamir](#) & Y. Fautrelle (1994) *Dynamics of electromagnetically driven spheres in liquid. Comparison between numerical simulations and experiments.* **Magnetohydrodynamics**, 30, No 3, 389-400
- [94] [Alamir, M.](#) & Bornard, G. (1994) *Sur la stabilité de la commande optimale à horizon fuyant des systèmes discrets non linéaires.* **C. R. Acad. Sci., série I**, 318, pp 769-773

## PATENTS & SOFTWARES

- [95] [Alamir](#) *Non Cyclic Data Signatures (v.1)*. CNRS-APP 13982-01, January 2021.
- [96] A. Moulichon, [Alamir](#), L. Garbuio, M. A. Rahmani, D. Gualino, V. Debusschere, N. Hadj-Said, M. X. Wang *Modification des valeurs de paramètres de la lois de commande d'un générateur.* Patent Schneider Electric, Europe, September 29, 2020
- [97] A. Moulichon, [Alamir](#), M. A. Rahmani, L. Garbuio, M. X. Wang, V. Debusschere and N. Hadj-Said *Control method of a generator.* Patent Schneider Electric, US 2020/0091720 A1, Mar. 19, 2020
- [98] [Alamir](#) *Estimating the Remaining Useful Life of Assets (v.1)*. CNRS-APP DL. 612-06, June, 2018.
- [99] [Alamir](#) and *End of Life Detector (v.1)*. CNRS-APP DL. 612-05, June, 2018.
- [100] [Alamir](#) and P. Bellemain *DiagSign Features Generation Tool (v.1)*. CNRS-APP DL. 612-04, June, 2018.
- [101] [Alamir](#) *Blind Fault Detector (v.1)*. CNRS-APP DL. 612-03, June, 2018.
- [102] P. Pflaum and [Alamir](#) (2018) *Method for controlling an electrical production station.* Patent Schneider Electric Industries, Patent 20180069401, July 16, (United States), 2019.
- [103] J. Dobrowolski, [Alamir](#) and D. Gualino (2018) *Method for controlling a Microgrid.* Patent Schneider Electric Industries, Patent number 20190157876, USA, May 23, 2019. 2016.
- [104] P. Pflaum and [Alamir](#) (2016) *Procéd de contrôle d'une centrale de production électrique.* Patent Schneider Electric Industries. 2016.
- [105] P. Pflaum and [Alamir](#) (2016) *Method for managing power in a charging station for electrical vehicles..* Patent 10040365. August 7, 2018.
- [106] D. Gualino, M. A. Rahmani and [Alamir](#) (2013) *Method for producing electricity via an installation composing a motor and an energy stocking device allowing the latency of motor load changes to be palliated.* Brevet Schneider Electric, No IDEAS 2011-2811 ; 2012-1784, 2013
- [107] F. Bonne, M. [Alamir](#) and P. Bonnay (2013) *Method for estimating the heat load imposed on a cryogenic refrigerator, associated program product, and method for controlling the refrigerator.* Application number PCT/IB2011/05086, Europe, USA.

- [108] M. Y. Lamoudi, P. Béguery and **Alamir** (2010) *Procédé de commande pour gérer le confort d'une zone d'un bâtiment selon une approche multicritère et installation pour la mise en oeuvre du procédé*. Brevet Schneider US2009/0112369
- [109] **Alamir**, P. Bonnay and F. Clavel (2010) *Procédé d'estimation de la charge thermique imposé à un réfrigérateur cryogénique, produit, programme associé et procédé de régulation du réfrigérateur*. Brevet BD11968.
- [110] P. Tona, R. Amari and **Alamir** (2009) *Procédé pour contrôler la phase de fermeture d'un embrayage d'un système de transmission robotisée automobile*. Brevet français, No 08/03822 (N/affaire 5825/00/BA. Institut Français du Pétrole)
- [111] P. Tona, R. Amari and **Alamir** (2009) *Method of controlling the closing phase of a clutch of an automated automobile transmission system*. US application Serial No 12/495.885, International Patent 09290470.5 - 2423. Institut Français du Pétrole
- [112] Thomas, J. L, P. Latteux, J. C. Alacoque, G. Bornard & M. **Alamir** (1998) *Procédé d'estimation de la vitesse d'un véhicule ou d'une association de véhicules*. Brevet étendu sur l'Europe et l'Extrême Orient 98402960.3-2213. Alsthom Transport.
- [113] **Alamir**, M & Alacoque, J. C (2000) *Procédé et dispositif de localisation d'un véhicule sur une voie*. Brevet Europe, USA, Canada, Chine. ALSTOM. AT 275, A30253

## BOOKS AND BOOKS CHAPTERS

- [114] Ch. Dedouits, **Alamir, M.**, R. Giroudeau and C. Lepape (2017) *Certification under Uncertainties of Control Methods for Multisource Elevators*. in Advances in intelligent Systems and Computing Series, Springer, Vol. 557, 2017.
- [115] **Alamir, M.** and P. Bellemain (2013) *DiagSign : A Model-Free Automatic Classification Software*. In CreateSpace Independent Publishing Platform - ISBN-10 1493748610, 2013.
- [116] **Alamir, M.** (2013) *A Pragmatic Story of Model Predictive Control*. In CreateSpace Independent Publishing Platform - ISBN-10 1489541349, 2013.
- [117] A. Murilo, **Alamir, M.** and P. Ortner. (2012) *Multivariable Control Strategy Based on a Parameterized NMPC for Diesel Engines*. In ABCM Symposium Series in Mechatronics - Vol 5, pp 316-324, 2012.
- [118] M. Y. Lamoudi, **Alamir, M.** and P. Béguery. (2012) *A Distributed-in-time NMPC-Based Mechanism For Resource Sharing Problems*. In Distributed MPC Made Easy, J. M. Maestre and R. R. Negenborn. (Ed). Springer-Verlag.
- [119] **Alamir, M.**, A. Murilo, R. Amari, R. Furhapter and P. Ortner (2009) *On the use of parametrized NMPC in real-time automotive control*. In Automotive Model Predictive Control, Luigi Del Re (Eds). Lecture Notes on Communication and Information Science. Springer-Verlag-Series.
- [120] **Alamir, M.** (2008) *A Framework for Monitoring Control Updating Period in Real-Time NMPC*. In Assesment and Future Directions of Nonlinear Model Predictive Control, L. Magni, D. Raimondo and F. Allgöwer (Ed). Lecture Notes on Communication and Information Science. Springer-Verlag-Series.
- [121] **Alamir, M.** (2007) *Nonlinear Moving Horizon Observers : Theory & Real-Time Implementation*. In Nonlinear Observers and Applications, Gildas Besançon (Ed). Lecture Notes on Communication and Information Science. Springer-Verlag-Series.
- [122] M. **Alamir** & S. Chareyron (2006) *State Constrained Optimal Control Applied to Cell-Cycle-Specific Cancer Chemotherapy*. Dans : Positive Systems Theory and Applications. Lecture Notes in Control and Information Science. Springer-Verlag 2006.
- [123] M. **Alamir** (2006) *A low dimensional contractive NMPC scheme for nonlinear systems stabilization : Theoretical framework and numerical investigation on relatively fast systems*. In : R. Findeisen, R. Allgower, L. Biegler (Eds.), Assessment and Future Directions of Nonlinear Model Predictive Control, Lecture Notes in Control and Information Sciences, Springer.
- [124] M. **Alamir** & Boyer, F. (2006) *Re-injecting the structure in NMPC schemes - Application to the constrained stabilization of a snakeboard*. In : Fast Motions in BioMechanics and Robotics, Optimization and Feedback Control, Lecture Notes in Control and Information Sciences, Springer.
- [125] **Alamir, M.** (2006) *La commande Prédictive Non linéaire*. Dans : La Commande Prédictive. Ed Hermès. (Ouvrage collectif). Coordinateur : D. Dumur
- [126] Witrant, E. and C. Canudas de Wit and F. Georges and and M. **Alamir** (2006) *On the Use of State Predictors in networked Control Systems*. In : LNCIS Springer-Verlag-Series.
- [127] **Alamir, M.** (2006) *Stabilization of Nonlinear Systems Using Receding-Horizon Control Schemes : A Parametrized Approach for Fast Systems*. Lecture Notes in Control and Information Sciences, Springer, London, ISBN 1-84628-470-8 (2006)
- [128] **Alamir, M.** (2000) *Estimateurs d'état . horizon glissant*. Dans : Automatique et procédés chimiques. Ed Hermès. ISBN 2-7462-0207-7. Coordinateur : J. P. Corriou
- [129] Marchand, N., M. **Alamir** & I. Balloul (2000) *Stabilization of nonlinear systems by dynamic state feedback*. Dans : NCN Springer-Verlag-Series. Ed Springer-Verlag

- [130] Marchand, N. & M. **Alamir** (2000) *Asymptotic controllability implies stabilizability : a more general result*. Dans : NCN Springer-Verlag-Series.
- [131] Balloul, I. & M. **Alamir** (2000) *Optimal Control with harmonic reduction and induction machines*. Dans : NCN Springer-Verlag-Series.

## INDUSTRIAL CONTRACT REPORTS

- [132] **Alamir** M. (2018) *Report on Data analysis and recommendations regarding the Schneider-Electric electronic Speed Control Devices* **Industrial report (Amiral Technologies), August 2018.**
- [133] **Alamir** M. (2017) *Digital-Challenge GE/HP : Solution description and Road Map* **Report presented by Amiral-Technologies for the GE/HP Industrial Digital Challenge. December 2017.**
- [134] Bornard, G. and **Alamir** M. (2007) *Amélioration et validation d'un simulateur d'un générateur de vapeur : Simulation de la loi de commande Calor.* **Rapport de Contrat. LAG/CALOR- Tâche 1**
- [135] **Alamir** M. & Guy Bornard (2007) *Estimation du niveau d'eau à partir des mesures de température* **Rapport de Contrat. LAG/CALOR- Tâche 2.a**
- [136] Guy Bornard & **Alamir** M.(2007) *Amélioration des performances d'un générateur de vapeur de fer à repasser. Conception de lois de commande. Elaboration d'une loi et étude comparative.* **Rapport de Contrat. LAG/CALOR- Tâche 2.b**
- [137] **Alamir** M. & G. Bornard (2007) *Analyse en aveugle d'un générateur de vapeur* **Rapport de Contrat. Gipsalab/CALOR- Rapport Phase 1 : Test de faisabilité sur données disponibles.**
- [138] **Alamir** M. & G. Bornard (2007) *Analyse en aveugle d'un générateur de vapeur* **Rapport de Contrat. Gipsalab/CALOR- Rapport Phase 2 : Test sur les données expérimentales.**
- [139] M. **Alamir** & S. A. Attia & C. Canudas de Wit (2003) *Nonlinear Predictive Controller for the simplified ABB Test Power System Stabilization Problem.* **Rapport de Contrat Européen CC-Project (LAG-VERIMAG)**
- [140] M. **Alamir** & S. A. Attia (2003) *On solving optimal control problems for switched hybrid nonlinear systems by strong variations algorithms.* **Rapport de Contrat Européen CC-Project (LAG-VERIMAG)**
- [141] **Alamir**, M., V. Guey & G. Bornard (1998) *Sur la commande des trains pendulaires.* **Rapport de Contrat - Phase III-. LAG/GEC-ALSTHOM 9LQ4**
- [142] **Alamir**, M. (1998) *Un observateur non linéaire pour la localisation d'un train sur une carte de mesures.* **Rapport de Contrat - Phase IV-. LAG/GEC-ALSTHOM 9LQ4**
- [143] Besançon, G., M. **Alamir** & G. Bornard (1998) *Commande des machines asynchrones avec stabilisation du filtre de tête.***Rapport de Contrat. LAG/ALCATEL-ALSTHOM-RECHERCHE**
- [144] Guey, V. & M. **Alamir** (1997) *Modèle de simulation en vue de la commande des trains pendulaires.* **Rapport de Contrat - Phase I-. LAG/GEC-ALSTHOM 9LQ4**
- [145] **Alamir**, M. (1997) *Sur la prédiction des courbes pour trains pendulaires.* **Rapport de Contrat - Phase II-. LAG/GEC-ALSTHOM 9LQ4**
- [146] **Alamir**, M. (1997) *Sur l'estimation de la vitesse d'un train en présence de glissement au niveau du contact roue/rail.* **Rapport de contrat. LAG/ALCATEL-ALSTHOM-RECHERCHE**
- [147] **Alamir**, M. (1995) *A Friction Based Transient Model for Slug Flow in Two-Phase Pipelines.* **Rapport de Recherche. RSI, Montbonnot, France**
- [148] **Alamir**, M. (1995) *Simulation of Two-Phase Flow in Pipelines.* **Rapport de Recherche. RSI, Montbonnot, France**

## CONFERENCE PAPERS

- [149] R. Dion, M. **Alamir** and Thibaut Le Magueresse. Anticipation, earliness, alarm cardinality : A new metric for industrial time-series anomaly detection. **Proceedings of 12th IFAC Symposium on Fault Detection, Supervision and Safety for Technical Processes, (SAFEPROCESS), Italy, 2024.**
- [150] M. **Alamir**. Explicit approximation of stochastic optimal feedback control for combined therapy of cancer. **Proceedings of the American Control Conference, Toronto, Canada, 2024.**
- [151] M. **Alamir**. A Heuristic for dynamic output predictive control design for uncertain nonlinear systems. **Proceedings of the American Control Conference, Toronto, Canada, 2024.**
- [152] K. Moussa and M. Fiacchini and M. **Alamir**. Regions of attraction estimation for tumor immune dynamical systems **Proceedings of the 21st European Control Conference (ECC2023), June 2023, Bucharest, Romania 2023.**

- [153] H. Meghnooudj, B. Robu and **M. Alimir**. Sparse control-inspired features generation for Schizophrenia diagnosis. **Proceedings of the IFAC World Congress, Yokohama, Japan, July 2023.**
- [154] Xuan-Huy Pham, **M. Alimir**, F. Bonne and P. Bonnay. Computation time reducing via non linearity isolating and constraint handling in fixed-point based hierarchical control framework. **Proceedings of the 2022 IEEE 17th International Conference on Control & Automation (ICCA), Naples, Italy, 2022**
- [155] Xuan-Huy Pham, **M. Alimir**, F. Bonne and P. Bonnay. Using iterative residual-based method for modular privacy-preserving requirement in hierarchical control framework **Proceedings of the 8-th Conference on Control, Decision and Information Technologies (CODIT), 2022.**
- [156] Xuan-Huy Pham, **M. Alimir** and F. Bonne. Investigation of fast-NMPC and deep learning approach in fixed-point-based hierarchical control. **Proceedings of the 8-th Conference on Control, Decision and Information Technologies (CODIT), 2022.**
- [157] A. Moulichon, **M. Alimir**, L. Garbuio, V. Debusschere, M. A. Rahmani et al. Replicability and portability of an advanced grid-forming VSG control for electrical grid with high rate of renewable energies. **Proceedings of CIRED, June, Genova 2021.**
- [158] A. Moulichon, **M. Alimir**, L. Garbuio, V. Debusschere, M. A. Rahmani, C. Boudinet, W. Noris and N. Hadj-Said. State observers to improve the VSG control stability. **Proceedings of 46th Annual Conference of the IEEE Industrial Electronics Society. October 18-21, Singapore 2020.**
- [159] D. Collet, **M. Alimir** D. Di Domenico and G. Sabiron. Behavioral cloning for fatigue-oriented wind turbine optimal predictive control. **Proceedings of 24th Symposium on Mathematical Theory of Networks and Systems. Cambridge, UK, 2020.**
- [160] K. M. M. Rathai, **M. Alimir** and O. Sename. A GPU-based stochastic parameterized NMPC scheme for control of semi-active suspension system for half car vehicle. **Proceedings of the 21st IFAC World Congress, Berlin, 2020.**
- [161] D. Collet, **M. Alimir**, D. Di Domenico and G. Sabiron. A fatigue-oriented cost function for optimal individual pitch control of wind turbines. **Proceedings of the 21st IFAC World Congress, Berlin, 2020.**
- [162] D. Collet, **M. Alimir**, D. Di Domenico and G. Sabiron. Non quadratic smooth model for fatigue-oriented individual pitch control. **Proceedings Torque 2020, Delft, The Netherlands, 2020.**
- [163] K. Moussa, M. Fiacchini and **M. Alimir**. Robust optimal scheduling of combined chemo and immunotherapy : consideration of chemotherapy detrimental effects. **Proceedings of the American Control Conference, Denver, Co, USA, 2020**
- [164] B. Guo, S. Bacha, **M. Alimir** and C. Boudinet. En enhanced pjase-locked loop with extended state observer. **Proceedings of the 20th international symposium on Power Electronics, Novi Sad, Serbia, 2019**
- [165] Murali Madhhavan Rathai, O. Sename and **M. Alimir**. GPU-based parametrized NMPC scheme for control of half car vehicle aith semi-active suspension system. **Proceedings of the 2019 IEEE Conference on Decision and Control. Nice, France, 2019**
- [166] K. Moussa, M. Fiacchini and **M. Alimir**. Robust optimal control-based design of a combined chemo and immunotherapy delivery profiles. **Proceedings of the 8th IFAC Conference on Foundations of Systems Biology in Engineering. Valencia, Spain, October 15-18, 2019**
- [167] D. Collet, D. Di Domenico, G. Sabiron and **M. Alimir**. A comparative study of different A Machine Learning-Based Approach for Individual Blade Pitch Controller Selection From Wind Conditions. **Proceedings of the IEEE American Control Conference. Philadelphia, USA, 2019.**
- [168] K. M. Madhavan Rathai, O. Sename and **M. Alimir**. A comparative study of different NMPC Schemes for Control of Semi-Active Suspension System. **Proceedings of the 9th IFAC Symposium on Advances in Automotive Control. Orlans France, 2019**
- [169] B. Guo, S. Bacha, **M. Alimir** and A. Ovalle Villamil. Optimal management of variable speed pumped-storage hydro-electric plant : cases study. **IEEE International Conference on Industrial Technology. Melbourne, 2019**
- [170] B. Guo, S. Bacha, **M. Alimir** and H. Iman Eini. A robust LESO-based DC-link voltage controller for variable speed hydro-electric plants. **IEEE International Conference on Industrial Technology. Melbourne, 2019**
- [171] K. Murali Madhavan Rathai, O. Sename and **M. Alimir**. Reachability-based Model Predictive Control for Semi-Active Suspension System. **Proceedings of the 5th Indian Control Conference, Delhi, 2018.**
- [172] **M. Alimir**. Numerical investigation regarding an MPC scheme with non uniformly weighted stage cost without terminal constraints : Application to the control of real-life cryogenic plant. **Proceedings of the IFAC workshop on Nonlinear Model Predictive Control NMPC2018, Wisconsin, Madison, USA, August, 2018.**



- [173] K. M. Madhavan Rathal, M. Almir, O. Sename and R. Tang. A Parameterized NMPC scheme for embedded control of semi-active suspension system. **Proceedings of the IFAC workshop on Nonlinear Model Predictive Control NMPC2018, Wisconsin, Madison, USA, August, 2018.**
- [174] A. T. Mohamed and M. Almir. Robust Output Feedback Controller For a Class of Nonlinear Systems with Actuator Dynamics. **Proceedings of the 9th IFAC Symposium on Robust Control Design, ROCOND'18, Florianopolis, Brazil, 2018**
- [175] J. A. Chocrane and M. Almir, Model Predictive Control and Parameter Estimation applied to Gene Expression in Yeast. **Proceedings of the 9th IFAC Symposium on Robust Control Design, ROCOND'18, Florianopolis, Brazil, 2018**
- [176] Baoling G., A. Mohamed, S. Bacha and M. Almir. Modeling, loss analysis, and experiment validation. **Proceedings of the International Conference on Industrial Technology (ICIT2018), Lyon France.**
- [177] J. Dobrowolski, M. Almir, S. Bacha, D. Gualino and M. X. Wang. On higher order dynamics in the fundamental equation of frequency in islanded microgrids. **Proceedings of the IFAC World Congress, Toulouse, France, 2017.**
- [178] M. Almir, J. Dobrowolski and A. T. Mohamed. Output feedback control of a class of uncertain systems under control-derivative dependent disturbances. **Proceedings of the IFAC World Congress, Toulouse, France, 2017.**
- [179] M. Almir, V. V. Vuong and P. Bonnay. On the stabilization of fixed-point iterations arising in hierarchical control design. **Proceedings of the IFAC World Congress, Toulouse, France, 2017.**
- [180] Ch. Dedouit, M. Almir, R. Giroudeau and C. Lepape. Certification Under Uncertainties of Control Methods for multi-source Elevators. **Proceedings of the 16th International Conference on Intelligent Systems Design and Applications.** Porto, Portugal, 2016.
- [181] J. Etay, A. Diarra, A. Gagnoud, Ch. Garnier, S. Massucci, M. Almir, A. Sulpice and S. Rivoirad. Measuring thermal conductivity and heat capacity of molten metallic alloys by electromagnetic levitation in a DC field. **Proceedings of the 10th PAMIR International Conference on Fundamental and Applied Magnetohydrodynamics.** June 20-24, Caligari, Sardinia, Italy, 2016.
- [182] M. Almir and Mirko Fiacchini. Observer-Based efficiency enhancement in Cell-Cycle specific Therapies **Proceedings of the 55th IEEE Conference on Decision and Control CDC2016.** Las Vegas, USA, 2016.
- [183] H. Mesnage, M. Almir, N. Perrissin-Fabert and Q. Alloin. Constrained model-based control for minimum-time start of hydraulic turbines. **28th IAHR Symposium on Hydraulic Machinery and Systems.** Grenoble, France, 2016.
- [184] Ch. Dedouits, M. Almir, R. Giroudeau and C. Le Pape. The Sourcing Problem : Energy Optimization of a MultiSource Elevator **13th International Conference on Informatics in Control ICINCO.** Lisbon, Portugal, 2016.
- [185] M. Almir. A New Contraction-Based NMPC Formulation Without Stability-Related Terminal Constraints. **Proceedings of the 10th IFAC Symposium on Nonlinear Systems NOLCOS-2016.** Monterey California, USA, 2016.
- [186] V. V. Trinh, M. Almir, P. Bonnay and F. Bonne. Explicit Model Predictive Control via Nonlinear Piecewise Approximations. **Proceedings of the 10th IFAC Symposium on Nonlinear Systems NOLCOS-2016.** Monterey California, USA, 2016.
- [187] M. Kang, M. Almir and T. Shen. Nonlinear Constrained Control for Gasoline Engines. **Proceedings of the 10th IFAC Symposium on Nonlinear Systems NOLCOS-2016.** Monterey California, USA, 2016.
- [188] M. Almir, M. Fiacchini, S. Bacha and T. Kovaltchouk *Active power control under grid-code constraints for a tidal farm.* **Proceedings of the 11th International Conference on Ecological Vehicles and Renewable Energies, EVER2016, Monaco, 2016**
- [189] R. Riah, M. Fiacchini and M. Almir, *Domain of attraction estimation of cancer chemotherapy model affected by state proportional uncertainty.* **Proceedings of European Control Conference (ECC'16), Aalborg, Denmark, 2016.**
- [190] M. Almir, *From Certification of Algorithms to Certified MPC : The missing Links.* **Proceedings of the 5th IFAC Conference on Nonlinear Model Predictive Control, Seville, Spain, 2015. (Invited Paper)**
- [191] J. Etay, A. Diarra, A. Gagnoud, Ch. Garnier, S. Massucci, M. Almir, A. Sulpice *A new device for measuring thermal conductivity and heat capacity of metallic alloys by electromagnetic levitation* **Proceedings of the 8th International Conference on Electromagnetic Processing of Materials, Cannes, France, 2015.**
- [192] F. Bonne, M. Almir, Ch. Hoa, P. Bonnay, M. Bon-Maridon and L. Monteiro *A Simulink Library of cryogenic components to automatically generate control schemes for large Cryorefrigerators.* **IOP Conference Series : Materials Science and Engineering. Volume 101, number 1, 2015.**
- [193] R. Riah, M. Fiacchini and M. Almir, *Invariance-based analysis of cancer chemotherapy.* **Proceedings of the 2015 IEEE Multi-Conference on Systems and Control.**

- [194] H. Ding, M. Almir, F. Bonne, A. Hably and P. Bonnay *Distributed cooperative control framework of a cryogenic system. Proceedings of the IEEE Conference on Industrial Industrial Technology, Sevilla, Spain, 2015.*
- [195] M. Almir, M. Fiacchini and A. Stéphanou *Reduced Model For 2D Tumor Growth and Tumor Induced Angiogenesis. Proceedings of the European Control Conference (ECC2015), Linz, Austria, 2015.*
- [196] P. Pflaum, M. Almir and M. Y. Lamoudi *Scalability study for a hierarchical NMPC scheme for resource sharing problems. Proceedings of the European Control Conference (ECC2015), Linz, Austria, 2015.*
- [197] M. A. Rahmani, M. Almir and D. Gualino *Nonlinear Dynamic Model Identification and MPC control of an Organic Rankine Cycle (ORC) based Solar Thermal Power Plant. Proceedings of the European Control Conference (ECC2015), Linz, Austria, 2015.*
- [198] Ch. Dedouits, M. Almir, V. Boutin and C. Le Pape *Multi-source elevator energy optimization and control. Proceedings of the European Control Conference (ECC2015), Linz, Austria, 2015.*
- [199] H. Mesnage, M. Almir, N. Perrissin-Fabert, Q. Alloin and S. Bacha *Hydraulic-turbine start-up with "S-shaped" characteristic. Proceedings of the European Control Conference (ECC2015), Linz, Austria, 2015.*
- [200] M. Almir *Fast NMPC : A reality Steered Paradigm : Key Properties of Fast NMPC Algorithms. Proceedings of the European Control Conference (ECC2014), Strasbourg, France. (Tutorial session : Fast MPC : Breaking Through the Speed Barrier).*
- [201] M. Almir *Fast NMPC : Some Good News and Some Facts to Keep in Mind. Proceedings of the European Control Conference (ECC2014), Strasbourg, France. (Semi-Plenary Talk).*
- [202] P. Pflaum, M. Almir and M. Y. Lamoudi *Comparison of a primal and a dual decomposition for distributed MPC in smart districts. Proceedings of the IEEE SmartGridCOMM Symposium, Venice, Italy, 2014.*
- [203] M. Almir *On Adaptive Measurement Inclusion Rate in Real-Time Moving-Horizon Observers. Proceedings of the IFAC World Congress, South Africa, 2014.*
- [204] H. Ding, M. Almir and A. Hably *A distributed cooperative control scheme with optimal priority assignment and stability assessment. Proceedings of the IFAC World Congress, South Africa, 2014.*
- [205] M. A. Rahmani, M. Almir, D. Gualino, S. S. Lechat *Experimental Validation of a Novel Control Strategy for an Off-Grid Hybrid Stirling Engine/Supercapacitor Power Generation System. Proceedings of the IFAC World Congress, South Africa, 2014.*
- [206] R. Lozano Jr, J. Dumon, A. Hably and M. Almir (2013) *Energy Production Control of An Experimental Kite System In Presence of Wind Gusts. IEEE/RSJ International Conference on Intelligent Robots and Systems. Tokyo, Japan. 2013.*
- [207] F. Bonne, M. Almir, P. Bonnay (2013) *Physical Control Oriented Modeling of Large Scale Refrigerators to Synthesize Advanced Control Schemes : Model Design and Validation Against Experimental Data and First Control Results. Cryogenic Engineering Conference and International Cryogenic Materials Conference. CEC/ICMC, Anchorage Alaska, USA, 2013.*
- [208] F. Bonne, M. Almir, P. Bonnay and B. Bradu (2013) *Model-Based Multivariable Controller For Large Scale Compression Stations : Controller Design and Experimental Validation On the LHC 18KW Cryogenic Helium Refrigerator. Cryogenic Engineering Conference and International Cryogenic Materials Conference. CEC/ICMC, Anchorage Alaska, USA, 2013.*
- [209] M. Almir (2013) *Monitoring Control Updating Period In Fast Gradient-Based NMPC. Proceedings of the European Control Conference, ECC2013, Zurich, 2013.*
- [210] M. A. Rahmani, M. Almir, D. Gualino (2013) *Control Strategy For An Off-Grid Hybrid Stirling Engine/Supercapacitor Power Generation System. Proceedings of the American Control Conference, ACC2013, Washington, 2013.*
- [211] A. Hably, R. Lozano Rogelio Jr., M. Almir, J. Dumon (2013) *Control Strategy For An Off-Grid Hybrid Stirling Engine/Supercapacitor Power Generation System. Proceedings of the American Control Conference, ACC2013, Washington, 2013.*
- [212] F. Bonne, M. Almir, P. Bonnay, F. Clavel and P. Majecki (2013) *Nonlinear Observer of the Thermal Loads Applied on the Helium Bath of a Cryogenic Refrigerator. Observer Design and Experimental Validation. Proceedings of the 5th IFAC Symposium on Systems, Structures and Control. Grenoble, France. 2013*
- [213] X. Li, M. Almir, E. Witrant, G. Della Valle, O. Rouaud, L. Boillereaux and C. Josset (2013) *Further investigations on energy saving by jet impingement in bread baking process. Proceedings of the 5th IFAC Symposium on Systems, Structures and Control. Grenoble, France. 2013*

- [214] A. Gahlawat, E. Witrant, M. W. Peet and M. Almir (2012) *Bootstrap Current Optimization in Tokamaks Using Sum-of-Squares Polynomials* **51 IEEE Conference on Decision and Control, Hawai, USA, 2012.**
- [215] M. Y. Lamoudi, M. Almir and P. Béguery (2012) *Model predictive control for energy management in buildings. Part 1 : Zone Model Predictive Control* **IFAC Workshop on Nonlinear Model Predictive Control (NMPC 2012), The Netherlands, August 2012.**
- [216] M. Y. Lamoudi, M. Almir and P. Béguery (2012) *Model predictive control for energy management in buildings. Part 2 : Distributed Model Predictive Control* **IFAC Workshop on Nonlinear Model Predictive Control (NMPC 2012), The Netherlands, August 2012.**
- [217] M. Almir, D. Alberer and L. Del Re (2012) *Identification of a class of nonlinear dynamic relationships applied to Diesel engine emission modeling.* **Workshop on emission modeling for control and diagnostics. Linz, Austria, March 2012.**
- [218] M. Almir (2012) *Sur les observateurs à horizon-glissant en présence de bruits bornés et non gaussiens* **Actes de la Conference Internationale Francophone d'Automatique, CIFA 2012, Grenoble, France**
- [219] M. Almir, C. Cadet, M. Lacou and S. Li (2012) *Commande prédictive contrainte d'un incinérateur de boues* **Actes de la Conference Internationale Francophone d'Automatique, CIFA 2012, Grenoble, France**
- [220] R. Lozano, M. Almir, J. Dumont and A. Hably (2012) *Control of a wind power system based on a tethered wing* **Proceedings of the IFAC workshop on Embedded Guidance, Navigation and Control in Aerospace**
- [221] M. Y. Lamoudi, P. Béguery and M. Almir (2011) *Use of simulation for the validation of a predictive control strategy for energy management in buildings* **Proceedings of Building Simulation (BS2011) conference, Sydney, Australia.**
- [222] O. Omar and M. Almir (2011) *Reducing Computational Load in Moving-Horizon Observers using Partial explicit Map Inversion* **Proceedings of the 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, FL. USA, 12-15 December, 2011.**
- [223] M. Y. Lamoudi, M. Almir and P. Béguery (2011) *Distributed constrained Model Predictive Control based on bundle method for building energy management* **Proceedings of the 50th IEEE Conference on Decision and Control and European Control Conference, Orlando, FL. USA, 12-15 December, 2011.**
- [224] A. Murilo, M. Almir, P. Ortner (2011) *Multivariable control strategy based on a parametrized NMPC for a diesel engine air path* **Proceedings of 21st International Congress on Mechanical Engineering (COBEM 2011), Natal, RN, October 24-28, Brazil, (2011).**
- [225] M. Almir, A. Hably and H. Ding (2011) *A Novel Distributed NMPC Control Structure For Partially Cooperative Systems under limited information sharing* **Proceedings of the IFAC World Congress, Milano, Italy, (2011).**
- [226] M. Y. Lamoudi, M. Almir and P. Béguery (2011) *Unified NMPC for Multi-Variable Control in Smart Buildings* **Proceedings of the IFAC World Congress, Milano, Italy, (2011).**
- [227] L. Boillereaux, M. Almir, S. Curet, O. Rouaud and P. Bellemain (2011) *Robust Estimation of temperature field during microwave tempering under unknown dielectric properties* **Proceedings of the IFAC World Congress, Milano, Italy, (2011).**
- [228] F. Clavel, P. Bonnay, G. Bornard, M. Almir, A. Barraud and C. Deschildre (2010) *An innovative control of a warm compression system for a Helium refrigerator subject to high pulsed loads* **Proceedings International Cryogenic Engineering Conference, Wroclaw, Poland, 2010.**
- [229] M. Almir, O. Omar, N. Servagent, A. Girin, P. Bellemain, V. Lebastard, P. B. Gossiaux, F. Boyer and S. Bouvier (2010) *On Solving Inverse Problems for Electric Fish Like Robots* **Proceedings of the 2010 IEEE Conference on Robotics and Biomimetics, Tianjin, China, 2010.**
- [230] M. Almir, P. Bellemain, L. Boillereaux, I. Queinnec, M. Titica, N. Sheibat-Othman, C. Cadet and G. Besançon (2010) *CLPP : A User-Friendly Platform for Nonlinear Robust Observer Design* **9th International Symposium on Dynamics and Control of Process Systems (Dycops 2010), 4-7 July, Leuven, Belgium**
- [231] M. Almir, N. Sheibat-Othman and S. Othman (2010) *Iterative Learning Control of the Particle Size Distribution in Emulsion Polymerization Processes* **4th International Conference on Population Balance Modelling, 15-17 September, Berlin, Germany**
- [232] L. Vincent, M. Almir, J. B. Le Bouquin, K. Perraut, P. Kern, L. Jocou and J. P. Berger (2010) *A New Control Architecture For Multi-Beam Fringe Tracker* **SPIE Symposium on SPIE Astronomical Telescopes and Instrumentation : Observational Frontiers of Astronomy for the New Decade. Optical and Infrared Interferometry II. San Diego, USA, June 2010.**

- [233] A. Murilo, M. Alami and P. Ortner (2009) *Experimental Validation of a Parameterized NMPC for a Diesel Engine* **Proceedings of 2009 IFAC Workshop on Engine and Powertrain Control, Simulation and Modeling, Rueil Malmaison, France.**
- [234] M. Alami (2009) *Distributed Partially Cooperative NMPC Under Limited Communication and Destabilizing Interconnections* **Proceedings of the IFAC Workshop on Time Delay Systems, 2009**
- [235] R. Amari and P. Tona and M. Alami (2009) *A phenomenological model for torque transmissibility during dry clutch engagement* **Proceedings of the IEEE Multi-Conference on Systems and Control, Saint Petersburg, Russia, 2009**
- [236] A. Murilo and M. Alami (2009) *Fast NMPC Scheme for a Diesel Engine Air Path* **Proceedings of the European Control Conference (ECC'09), Budapest, 2009**
- [237] R. Amari and P. Tona and M. Alami (2009) *Experimental evaluation of a hybrid MPC strategy for vehicle start-up with an Automated Manual Transmission* **Proceedings of the European Control Conference (ECC'09), Budapest, 2009**
- [238] J. S. Welsh, J. C. Aguera and M. Alami (2009) *Continuous-Time System Identification Using Indirect Inference* **Proceedings of the 15th IFAC Symposium on System Identification**
- [239] M. El-Rafei, M. Alami, N. Marchand, M. Porez and F. Boyer (2008) *Reduced Mean Model For Controlling a Three-Dimensional Eel-Like Robot* **2008 IEEE International Conference on Robotics and Biomimetics, Bangkok, Thailand. Decembre 2008.**
- [240] Alami, M., Welsh, J. S. and Goodwin, G. C (2008) *On useful redundancy in experiment design for nonlinear system identification* **Proceedings of the IEEE Conference on Decision and Control (CDC08), Cancun, Mexico. December 2008.**
- [241] El Rafei M., and Alami, M., Marchand N., Porez M. and Boyer F. (2008) *Multi-variable Constrained Control Approach for a Three-Dimensional Eel-Like Robot* **Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems. Nice, France, 2008.**
- [242] Amari R., Alami, M. and Tona P. (2008) *Unified MPC strategy for idle-speed control, vehicle start-up and gearing applied to an Automated Manual Transmission* **Proceedings of the IFAC World Congress, South Korea, (2008)**
- [243] El-Rafei M., Alami, M., Marchand N., Porez M. and Boyer F. (2008) *Motion Control of a Three-Dimensional Eel-like Robot Without Pectoral Fins* **Proceedings of the IFAC World Congress, South Korea, (2008)**
- [244] Alami, M. (2008) *On Useful Redundancy in Dynamic Inverse Problems Related Optimization* **Proceedings of the IFAC World Congress, South Korea, (2008)**
- [245] Alami, M.; Hafidi, G.; Marchand, N.; Elrafei, M.; Porez, M. and Boyer, F. (2007) *Feedback design for 3D movement of an Eel-like robot* **Proceedings of the 2007 IEEE International Conference on Robotics and Automation, Roma, Italy.**
- [246] Chareyron, S. and Alami, M. (2007) *Mixed Immunotherapy and Chemotherapy of Tumors : Feedback Design and Model Updating Schemes* **Proceedings of International Conference on Computational and Mathematical Population Dynamics. Campinas, Brazil. July, 2007.**
- [247] Alami, M. (2007) *On state-dependant sampling for nonlinear controlled systems sharing limited computational resources* **Proceedings of the 2007 European Control Conference, Greece, 2007.**
- [248] Houdebine, M.; Alami, M.; Sename, O. and Dedieu, S. (2007) *Nonlinear Observer for Frequency Meter in Digital Phase Locked Loops* **Proceedings of the 2007 European Control Conference, Greece, 2007.**
- [249] Alami, M.; Sheinat-Othman N. and Othman S. (2007) *On The Use of Nonlinear Receding-Horizon Observers in Batch Terpolymerization Processes with Partially Unmodelled Dynamics : Formulation and Experimental Validation.* **Proceedings of the 7th IFAC Symposium on Nonlinear Control Systems (NOLCOS 2007), Pretoria, South Africa, August 2007 (Invited session on nonlinear observers in bioreactors).**
- [250] Murilo, A. P. and Alami, M. (2007) *Output Feedback Design of a Twin Pendulum System in Presence of Sensor Bias* **Proceedings of the 7th IFAC Symposium on Nonlinear Control Systems (NOLCOS 2007), Pretoria, South Africa, August (2007)**
- [251] Houdebine, M.; Dedieu, S.; Sename, O. and Alami, M. (2006) *A sampled spur free fractional frequency synthesizer and its noise analysis* **Proceedings of ESSCIRC 2006, 32nd European Solid-State Circuits Conference, 18-22 September 2006, Montreux, Switzerland**
- [252] Alami, M.; Sheibat-Othman, N. and Othman, S. (2006) *Constrained nonlinear receding-horizon control for maximizing production in polymerization processes* **Proceedings of the first IFAC workshop on nonlinear model predictive control for fast systems, NMPC-FS'06, Grenoble, France.**

- [253] Attia, S. A. and **Alamir, M.** (2006) *A predictive switching strategy for a class of hybrid systems : wave suppression in fluid dynamic systems* **Proceedings of the first IFAC workshop on nonlinear model predictive control for fast systems, NMPC-FS'06, Grenoble, France.**
- [254] **Alamir, M.** (2005) *A low dimensional contractive NMPC scheme for nonlinear systems stabilization : Theoretical framework and numerical investigation on relatively fast systems* **Proceedings of the international workshop on assessment and future directions of NMPC, Freudenstadt, Germany, August 2005 (Invited paper)**
- [255] **Alamir, M.** and Boyer, F. (2005) *Re-injecting the structure in NMPC schemes : Application to the constrained stabilization of a snake board* **Proceedings of the international Symposium on Fast Motion in Biomechanics and Robotics, September 2005 (Invited paper)**
- [256] Hably, A.; Marchand, N. and **Alamir, M.** (2005) *Constrained Minimum-time-oriented Stabilization of Extended Chained Form Systems* **Proceedings of 44th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC'05), Seville, Spain, 2005.**
- [257] Attia, S. A. and **Alamir, M.** (2005) *On Complexity Reduction of Voltage Stabilization MPC Schemes by Partial Explicit Feedbacks* **Proceedings of 44th IEEE Conference on Decision and Control and European Control Conference (CDC-ECC'05), Seville, Spain, 2005. (Invited Session)**
- [258] **Alamir, M.**; F. Ibrahim and J. P. Corriou (2005) *A flexible nonlinear MPC Scheme for Quality/Performance Handling in Nonlinear SMB Chromatography* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [259] Dejjardin, N. **Alamir, M.** and J. P. Corriou (2005) *Model Predictive Control of a Simulated Moving Bed* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [260] Corriou, J. P.; M. **Alamir** (2005) *A nonlinear observer for concentration profiles in simulated moving bed* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [261] Youssef, B.; M. **Alamir** (2005) *Diagnosis and on-line parametric estimation of automotive electronic throttle control system* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [262] Youssef, B.; M. **Alamir** and F. Ibrahim (2005) *Diagnosis and on-line parametric estimation of Simulated Moving Bed* **Proceedings of the 44th IEEE Conference on Decision and Control.**
- [263] Attia, S. A.; M. **Alamir** and C. Canudas de Wit (2005) *Suboptimal Control of switched nonlinear systems under location and switching constraints* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [264] Houdebine, M.; S. Dedieu; M. **Alamir** and O. Senane (2005) *A new fractional frequency synthesizer architecture with stability and robustness analysis* **Proceedings of the IFAC World Congress. Praha, Czech Republic.**
- [265] **Alamir, M.**; S. A. Attia and Carlos Canudas-de-Wit (2004) *Nonlinear Predictive Controller for a Test Power Systems Stabilization Problem. (Invited session)* **Proceedings of World Automation Congress, June 2004, Spain.**
- [266] Chemori, A; M. **Alamir** (2004) *Nonlinear Predictive Control of Under-actuated Mechanical Systems Application : the ECP505 inverted pendulum* **Proceedings of the 16th International Symposium on Mathematica Theory of Networks and Systems, Leuven, Belgium.**
- [267] Chemori, A; M. **Alamir** (2004) *Low dimensional predictive control scheme for limit cycle generation in nonlinear hybrid control system* **CCCT'04 – 2nd International Conference on Computing, Communication and Control Technologies – Austin, Texas, USA**
- [268] Chemori, A; M. **Alamir** (2004) *Generation of multi-steps limit cycles for Rabbit using a low dimensional (scalar) nonlinear predictive control scheme* **IROS 2004 IEEE/RSJ international Conference on Intelligent Robots and Systems, Sendai, Japan**
- [269] Witrant, E.; C. Canudas de Wit; D. Georges and M. **Alamir** (2004) *Remote Stabilization via Time-Varying Communication Network Delays : Application to TCP networks* **Proceedings of the 2004 IEEE Conference on Control Applications, Taipei, Taiwan. (Invited paper)**
- [270] **Alamir, M.**; S. A. Attia (2004) *On solving optimal control problems for switched nonlinear systems by strong variations algorithms* **NOLCOS 2004 Symposium on Nonlinear Control Systems. Stuttgart, Germany.**
- [271] **Alamir, M.**; C. Commault (2004) *A New Equal-Partition Measurement Encoding Scheme for Networked Control Systems* **NOLCOS 2004 Symposium on Nonlinear Control Systems. Stuttgart, Germany.**
- [272] B. Youssef & M. **Alamir** (2003) *Generic signature based tool for diagnosis and parametric estimation for multi-variable dynamical nonlinear systems.* **Proceedings of the 42th Conference on Decision and Control, Hawaii, USA.**
- [273] L. Calvillo-Coronna, M. **Alamir** (2002) *A Towards the construction of a robust optimal observer* **IFAC World Congress, Barcelona, Spain.**

- [274] [Alamir, M.](#) (2002) *On Friction Compensation without Friction Model*. **Proceedings of the IFAC World Congress**. Barcelona, Spain.
- [275] [Alamir, M.](#) (2002) *Sensitivity Analysis in Simultaneous State/Parameter Estimation for Induction Motors*. **Proceedings of the IFAC World Congress**. Barcelona, Spain.
- [276] [Alamir, M.](#); J.P. Corriou (2002) *Nonlinear Receding-Horizon State Estimation for Dispersive Adsorption Columns with Nonlinear Isotherm* **Proceedings of the 41st Conference on Decision and Control, Las Vegas, USA**.
- [277] [Alamir, M.](#); N. Marchand (2002) *Constrained sub-optimal feedback control for minimum-time stabilization of nonholonomic systems in chained form* **Proceedings of the 41st Conference on Decision and Control, Las Vegas, USA**.
- [278] N. Marchand & M. [Alamir](#) (2002) *Discontinuous Exponential Stabilization of Chained Form Systems* **Proceedings of the 41st Conference on Decision and Control, Las Vegas, USA**.
- [279] [Alamir, M.](#); F. Boyer (2001) *Fast generation of attractive trajectories for a deficient satellite. Application to feedback control design* **Proceedings of the IFAC Symposium on s Systems Structures and Control**. Prague.
- [280] [Alamir, M.](#) (2001) *New path generation based receding horizon formulation for constrained stabilisation of nonlinear systems* **Proceedings of IEEE 40<sup>th</sup> Conference on decision and Control** Orlando, Florida
- [281] [Alamir, M.](#); L. Calvillo (2001) *Further results on nonlinear receding horizon observers* **Proceedings of IEEE 40<sup>th</sup> Conference on decision and Control** Orlando, Florida
- [282] [Alamir, M.](#); H. Khenouf (2001) *A MATLAB/GUI<sup>©</sup> Case-Study Environment for Nonlinear Control Learning* **Proceedings of IEEE 40<sup>th</sup> Conference on decision and Control** Orlando, Florida
- [283] [Alamir, M.](#) (2000) *Nonlinear Robust Controller for Rotating Stall and Surge in Axial Flow Compressors* **Proceedings of IEEE 39<sup>th</sup> Conference on decision and Control** Sydney, Australia
- [284] [Alamir, M.](#) (2000) *Solution of nonlinear optimal and robust control problems via a mixed collocation/DAE's based algorithm* **Proceedings of IEEE 39<sup>th</sup> Conference on decision and Control** Sydney, Australia
- [285] [Alamir, M.](#) (1999) *On the Feasibility of Finite Difference Homotopy Based Algorithm for Nonlinear Optimal Control Problems*. **Proceedings of the IFAC World Congress**, Beijing, China.
- [286] [Alamir, M.](#) & I. Balloul (1999) *Robust Constrained Control Algorithm for General Batch Processes*. **Proceedings of the European Control Conference**, Karlsruhe, Germany
- [287] Balloul, I. & M. [Alamir](#) (1999) *Analysis Of H Infinity Feedback Systems Using The Gap Metric*. **Proceedings of the 12th International Conference on Control Systems and Computer Science** Bucharest, Romania
- [288] [Alamir, M.](#) (1999) *Optimization Based Nonlinear Observers Revisited*. **Proceedings of the IFAC World Congress**, Beijing, China.
- [289] Marchand, N. & M. [Alamir](#) (1998) *Numerical Stabilization of a Rigid Spacecraft with Two Actuators*. **Proceedings of the IFAC Conference on Systems Structures and Control**, Nantes, France.
- [290] Marchand, N. & M. [Alamir](#) (1998) *From Open Loop Trajectories to Stabilizing State Feedback -Application to a CSTR-*. **Proceedings of the IFAC Conference on Systems Structures and Control**, Nantes, France.
- [291] Benthabet, M. M. [Alamir](#), M. Bailly & J. P. Corriou (1997) *Nonlinear control of a simulated moving bed*. **Proceedings of the AIChE's 1997 Annual Meeting**, Los Angeles, USA. 16-21
- [292] [Alamir, M.](#) & H. Khenouf (1995) *Discontinuous receding horizon control-based stabilizing feedback for nonholonomic systems in power form*. **Proceedings of the IEEE Conference on Decision and Control**, New Orleans
- [293] [Alamir, M.](#) & G. Bornard (1995) *Minimum energy-based discontinuous globally stabilizing strategy for a class of nonlinear systems*. **Proceedings of the European Control Conference**, Rome, Italy
- [294] [Alamir, M.](#) & G. Bornard (1995) *Optimization based stabilizing strategy for nonlinear discrete time systems with unmatched uncertainties*. **Proceedings of the Second International Symposium on Methods and Models in Automation and Robotics**, Miedzyzdroje, Poland. 193-198
- [295] [Alamir, M.](#) & G. Bornard (1994) *New sufficient conditions for global stability of receding horizon control for discrete-time nonlinear systems*. in **Advances in model predictive control**, Oxford Science Publications, 173-181
- [296] Etay, J. M. [Alamir](#) & Y. Fauterelle (1993) *Dynamics of electromagnetically driven spheres in liquid, comparaison between numerical simulations and experiments*. **Proceedings of the 7th Beer-Sheva seminar on MHD flows and turbulence**, Israel.

OPEN ARCHIVES

- [297] M. Almir. and R. Dion. *Model-Free Unsupervised Anomaly detection framework in multivariate time-series of industrial dynamical systems*. <https://arxiv.org/abs/2405.08349>. ,2024.
- [298] M. Almir. *A Framework and a python-package for real-time NMPC parameters setting*. <http://arxiv.org/abs/2309.17238>, 2023.
- [299] M. Almir. *Learning-Based sensitivity analysis and feedback design for drug delivery of mixed therapy of cancer in the presence of high model uncertainties* <http://arxiv.org/abs/2205.07482>, April, 2022.
- [300] M. Almir. *A Heuristic for Dynamic Output Predictive Control for Uncertain Nonlinear Systems* [arxiv.org/abs/2102.02268](https://arxiv.org/abs/2102.02268), June, 2021.
- [301] M. Almir. *Observability Certification and Optimal Design of Nonlinear Observation Parameters in the Presence of Measurement Noise and Model Mismatches*. [arXiv: 2006.11112](https://arxiv.org/abs/2006.11112), June, 2021.
- [302] M. Almir. and G. Pannochia. *A New Formulation of Economic Model Predictive Control Without Terminal Penalty*. [arXiv: 2005.04381](https://arxiv.org/abs/2005.04381), 2020.
- [303] M. Almir. *On the use of Data-Driven cost Function Identification in Parametrized NMPC*. [arXiv: 2005.04076](https://arxiv.org/abs/2005.04076). 2020.
- [304] M. Almir. *Explicit approximation of stochastic optimal feedback control for combined therapy of cancer*. [arXiv :1905.04937](https://arxiv.org/abs/1905.04937), (2019).
- [305] M. Almir. *On the use of supervised clustering in stochastic NMPC design* [arXiv :1811.09069](https://arxiv.org/abs/1811.09069), (2018).
- [306] M. Fiacchini and M. Almir. *Computing Control Invariant Sets is Easy* [arXiv :1708.04797](https://arxiv.org/abs/1708.04797) (2017).
- [307] M. Almir. *A Free-Matlab-Coder package for Real-Time Nonlinear Model Predictive* [arXiv :1703.08255](https://arxiv.org/abs/1703.08255) (2017).
- [308] H. Ha, J. Welsh and M. Almir. *Useful Redundancy in parameter and time delay estimation for continuous-time models* [arXiv :1703.09344](https://arxiv.org/abs/1703.09344).
- [309] M. Almir. *Stability proof for nonlinear MPC design using monotonically increasing weighting profiles without terminal constraints* [arXiv :1703.02761](https://arxiv.org/abs/1703.02761).
- [310] M. Almir, P. Bonnay, F. Bonne and V. V. Trinh *Fixed-point based hierarchical MPC control design for a cryogenic refrigerator* [arXiv :1702.08813](https://arxiv.org/abs/1702.08813).
- [311] M. Almir, J. Dobrowolski and T. A. Mohamed *Output Feedback Control of a Class of Uncertain Systems Under Control-derivative dependent disturbances* [arXiv :1602.00547](https://arxiv.org/abs/1602.00547).
- [312] M. Almir *A new contraction-based NMPC formulation without stability-related terminal constraints* [arXiv :1602.00547](https://arxiv.org/abs/1602.00547).
- [313] M. Almir *LP-Based Identification of general nonlinear multivariable maps : Preliminary results (2015)* [hal-01131522](https://hal.archives-ouvertes.fr/hal-01131522).
- [314] M. Almir *On probabilistic Certification of Combined Cancer Therapies Using Strongly Uncertain Models, (2015)* [arXiv 1502.06218](https://arxiv.org/abs/1502.06218).
- [315] M. Almir *NLP Solutions as Asymptotic values of ODE Trajectories, (2015)* [arXiv 1501.04056](https://arxiv.org/abs/1501.04056).
- [316] M. Almir *On Adaptive Inclusion Rate in Real-Time Moving-Horizon Observers, (2014)* [arXiv 1309.4907](https://arxiv.org/abs/1309.4907).
- [317] M. Almir *A New Identification Framework for Off-Line Computation of Moving-Horizon Observers, (2014)* [arXiv 1210.6488](https://arxiv.org/abs/1210.6488).
- [318] M. Almir *Monitoring Updating Period in Fast Gradient Based NMPC, (2013)* [arXiv 1209.4922](https://arxiv.org/abs/1209.4922).
- [319] M. Almir *A State-Dependent Updating Period For Certified Real-Time Model Predictive Control, (2015)* [arXiv :1508.04310](https://arxiv.org/abs/1508.04310).
- [320] M. Almir *On Controlling Unknown Scalar Systems with Low Gain Feedback, (2015)* [hal-01215808](https://hal.archives-ouvertes.fr/hal-01215808).

#### THESIS

- [321] Almir, M. (1995) *Contributions à l'étude de commande optimale . horizon fuyant des systèmes discrets non linéaires* **Thèse de doctorat**, Laboratoire d'Automatique de Grenoble, Institut National Polytechnique de Grenoble.
- [322] Almir, M. (2000) *Promenades non linéaires* **Thèse d'habilitation à diriger les recherches (HDR)**, Laboratoire d'Automatique de Grenoble, Institut National Polytechnique de Grenoble.