

Selected publications

Kadrani, A., Sidi, M. O., Quilot-Turion, B., Génard, M., & Lescourret, F. (2012). Particle Swarm Optimization to Design Ideotypes for Sustainable Fruit Production Systems. *International Journal of Swarm Intelligence Research (IJSIR)*, 3(2), 1-19. doi:10.4018/jsir.2012040101.

Isabelle Grechi, Mohamed-Mahmoud Ould-Sidi, Nadine Hilgert, Rachid Senoussi, Benoît Sauphanor, Françoise Lescourret. Designing integrated management scenarios using simulation-based and multi-objective optimization: application to the peach tree-Myzus persicae aphid system. *Ecological Modelling* 246 (2012) 47–59.

J. André, S. Auray, J. Brac, D. De Wolf, G. Maisonnier, MM. Ould Sidi, A. Simonet. Design and dimensioning of Hydrogen transmission pipeline networks. *European Journal of Operations Research* (accepted subject to modifications).

B. Quilot-Turion, MM. Ould Sidi, A. Kadrani, N. Hilgert, M. Génard, F. Lescourret. 2011. Optimization of genetic parameters of the 'Virtual Fruit' model to design peach ideotypes for sustainable production systems. *European Journal of Agronomy* 42 (2012) 34– 48.

MM. Ould Sidi and F. Lescourret. Model-based design of innovative cropping systems: state of the art and new prospects. *Agronomy for sustainable development*. Volume 31, Issue 3, 2011, pp. 571-588.

D. De Wolf, MM. Ould Sidi, J. André, A. Simonnet, G. Maisonnier, J. Brac. Optimal design and dimensioning of Hydrogen transmission distribution pipeline networks. *HEC Discussion Paper* 2009 03/01, Mars 2009.

MM. Ould Sidi, S. Hayat, S. Hammadi, P. Borne. A novel approach to developing and evaluating regulation strategies for urban transport disrupted networks. *International Journal of Computer Integrated Manufacturing* Vol. 21, No 4, June 2008, pp 480-493.

MM. Ould Sidi, S. Hammadi, S. Hayat, P. Borne. Urban transport networks regulation and evaluation: A fuzzy evolutionary approach. *IEEE transaction on systems mans and cybernetics SMC Part A: Systems and Humans*, Vol. 38, No 2, March 2008, pp 309-318.

Communications and conferences

Ould-Sidi Mohamed-Mahmoud, Quilot-Turion Bénédicte, Kadrani Abdeslam, Génard Michel, Lescourret Françoise. *Compromising stopping criteria and performance of NSGA-II algorithm: case of sustainable peach ideotypes design. META'12.*

Mohamed-Mahmoud Ould-Sidi, Bénédicte Quilot-Turion, Antoine Rolland. *Multicriteria sorting methods to select virtual peach ideotypes. ROADEF'12.*

I. Grechi, N. Hilgert, MM. Ould Sidi, F. Lescourret. An Agro-Ecological Model of the Peach tree-Myzus persicae Aphid System and its Use to Evaluate and Design Integrated Management Scenarios. IXth International Symposium on Modelling in Fruit Research and Orchard Management, June 19-23, 2011, Saint-Jean-sur-Richelieu, Québec, Canada.

M. Génard, B. Quilot-Turion, MM. Ould-Sidi, A. Kadrani, N. Hilgert, F. Lescourret. Heuristic value of a 'Virtual fruit' model of peach fruit quality and sensitivity to brown rot: impact of a single mutation and design of ideotypes. IXth International Symposium on Modelling in Fruit Research and Orchard Management, June 19-23, 2011, Saint-Jean-sur-Richelieu, Québec, Canada.

A. Kadrani, MM. Ould Sidi, B. Quilot-Turion, M. Génard, F. Lescourret. Particle swarm optimization for designing ideotypes for sustainable production systems. In proceeding of the International conference on swarm intelligence ICSI'2011. June 14-15 Paris, France.

MM. Ould Sidi, B. Quilot-Turion, A. Kadrani, N. Hilgert, M. Génard, F. Lescourret. Application des algorithmes génétiques pour la conception de systèmes de culture durable. In proceeding of the 12th annual conference of the French Society for Operations research (ROADEF). 2-4 Mars 2011, St Etienne, France.

MM. Ould Sidi, I. Grechi, and F. Lescourret. *Conception des systèmes de production intégrée : apports de l'optimisation multiobjectif*. In proceeding of the 11th annual conference of the French Society for Operations research (ROADEF). February 24th-26th 2010, Toulouse, France.

MM. Ould Sidi, I. Grechi, and F. Lescourret. *Models-based design of integrated horticultural systems: contributions using multi-objective optimisation methods*. In proceeding of the 11th conference of the European Society for Agronomy AGRO'2010. August 29 to September 03, 2010. Montpellier, France.

B. Quilot-Turion, A. Kadrani, MM. Ould Sidi, N. Hilgert, M. Génard, F. Lescourret. *The virtual fruit: towards a tool to design ideotypes for sustainable production systems*. In proceeding of the 11th conference of the European Society for Agronomy AGRO'2010. August 29 to September 03, 2010. Montpellier, France.

J. Andre, J. Brac, D. De Wolf, G. Maisonnier, MM. Ould Sidi and A. Simonnet. *Optimal Design and dimensioning of Hydrogen transmission and distribution pipeline networks*. 23th

conference on quantitative methods for decision making, February 5th-6th 2009, Leuven, Belgium.

J. André, A. Simonnet, MM. Ould Sidi, D. De Wolf, G. Maisonnier, J. Brac. *Least-cost development of large-scale hydrogen pipeline networks*. International Gas Union Research Conference, October 8th-10th 2008, Paris, France.

J. André, A. Simonnet, J. Brac, G. Maisonnier, MM. Ould Sidi, D. De Wolf. *Least-Cost Development of Hydrogen Transmission-Distribution Pipeline Networks*. 17th World Hydrogen Energy Conference, 15th-19 June 2008, Brisbane, Queensland, Australia.

MM. Ould Sidi, D. De Wolf, J. André, G. Maisonnier, J. Brac et A. Simonnet. *Optimisation couplée topologie/dimensionnement de réseaux de canalisations : nouveaux résultats sur le cas de l'hydrogène*. 5^{ème} colloque sur l'optimisation et les systèmes d'information, 8-10 juin 2008, Tizi-Ouzou, Algérie.

J. André, D. De Wolf, J. Brac, Guy Maisonnier, A. Simonnet, MM. Ould Sidi. *Modèles de déploiement de réseaux de transport de l'hydrogène*. Séminaire du Programme National de Recherche sur l'Hydrogène PAN-H, INP Grenoble, 29-30 Novembre 2007.

MM. Ould Sidi, D. De Wolf, J. André, J. Brac, A. Simonnet. *Optimisation couplée topologie/dimensionnement de réseaux de canalisations*. Journée sur l'Optimisation des réseaux JOR 2008, 15 Mai 2008, Paris.

S. Hayat, MM. Ould Sidi, S. Hammadi. *Régulation du trafic des réseaux de transport collectif : Approche Évolutionniste floue*. META2006, 3-4 Novembre 2006, Hammamet, Tunisie.

MM. Ould Sidi, S. Hayat, S. Hammadi. *Urban transport disrupted networks regulation strategies making and evaluation: A new approach*. International Conference on Industrial Engineering and Systems Management IESM 2005, May 16 – 19, Marrakech (Morocco)

MM. Ould Sidi, S. Hayat, S. Hammadi. *AEMC pour l'aide à la régulation du trafic d'un réseau de transport collectif*. Méthodes et heuristiques pour l'optimisation des systèmes industriels (MHOSI'05), 24-26 Avril 2005, Hammamet, Tunisie.

MM. Ould Sidi, S. Hammadi, S. Hayat, P. Borne. *Approche floue d'un système d'évaluation des stratégies de régulation d'un réseau de transport perturbé*. Journées francophones de la logique floue et ses applications (LFA'04). 17 et 18 novembre 2004, Nantes, France.

MM. Ould Sidi, S. Hammadi, S. Hayat, P. Borne. *Towards an interactive and effective regulation for the urban transport networks*. IEEE SMC'04. October 10-13 2004, The Hague Netherlands.

S. Hayat, MM. Ould Sidi. *Towards fuzzy aid decision-making system of the Valenciennes transport network connections*. IEEE International Conference on Information Reuse and Integration IRI 2003, 27-29 Oct. 2003. Las Vegas, USA.