Prof. Julien M. Hendrickx, PhD

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Experience

2010- …	Professor at **UCLouvain**
2018-2019	Resident scholar at **Boston University**
2009-2010	Postdoctoral fellow at the **Massachusetts Institute of Technology,** Laboratory for Information and Decision Systems Supervisor: *John N. Tsitsiklis*

Visiting positions

Mar-May 2008 May-Jun 2006	**Massachusetts Institute of Technology** Host: *John N. Tsitsiklis*
Feb-Mar 2006 Apr-May 2005	**National ICT Australia** Host: *Brian D. O. Anderson*
Jan-May 2004 Aug-Sept 2003	**University of Illinois at Urbana Champaign** Host: *Philippe H. Geubelle*

Education

Feb 2008	**Ph.D. in mathematical engineering** UCLouvain, Belgium Thesis: *"Graph and networks for the analysis of autonomous agents systems"* Advisor: Prof. Vincent Blondel
June 2004	**Engineering degree in applied mathematics, minor in electrical engineering** UCLouvain, Belgium Suma cum Laude, first student out of 254

Research team

Present team: - 4 PhD students: C. Monnoyer, L. Rocher, E. Massart and F. Mehdifar
          - 2 postdocs: Dr. G. Birpoutsoukis and Dr. J. Riehl

Former members: B. Mitra, assistant professor at I.I.T. Kharagpour,
            F. Iutzeler, assistant professor at Université J. Fourier, Grenoble,
            B. Gerencser, Renyi Institute of Hungarian Academy of Science,
            A. Mauroy assistant professor at UNamur
            A. Taylor, postdoc at ENS Paris
            F. Robic, at Corps des mines

G. Vankeerbergen, at Real Impact Analytics

P-Y Chevalier, at N-Side

C. Vande Kerckhove, Senior Data Scientist at Delphia, Toronto

Master students: 35 master students (co)-supervised since 2011, including in collaboration with industrial partners, on theoretical topics, or as part of the creation of a drone lab.

Awards

- EECI 2008 award for the best PhD thesis in Europe in the field of Embedded and Networked Control
- Best paper award of the Asian Journal of Control for 2006-2008 for "*Rigidity and persistence for ensuring shape maintenance in multiagent meta-formations*" (Asian Journal of control, Volume 10, Issue 2, pages 131-143, 2008)
- Alcatel-Lucent-Bell 2009 award for a PhD thesis in Belgium on original new concepts or applications in the domain of information and communication technologies
- Outstanding reviewer of the IEEE Transactions on Automatic Control (IF 4.27) in 2011.
- Outstanding reviewer of Automatica (IF 5.45) in 2015-2016.

- Former PhD student A. Taylor among the 3 finalists of the triennial Tucker prize for a PhD thesis in optimization (in the world).

External Funding

- RevealFlight project (https://sites.uclouvain.be/RevealFlight/ Concerted Research Action 2017-2022) aiming at reproducing collaborative behaviours inside flocks, taking biomechanics and fluid dynamics into account: 700k€ for 3 P.I.
- Junior promoter of the UCL team in the interuniversity attraction pole on dynamical systems, control and optimization (IAP VII- DYSCO, 2012-2017 http://sites.uclouvain.be/dysco/, 900k€ for UCL.
- "Wesmart": innoviris (Brussels innovation fund) project to funding a researcher to collaborate with a technological company on time series analysis: 230k€
- Four PhD students have been fully funded by FRIA fellowships, one by an FNRS fellowship.
- Part of the Belgian team as a P.I. in a MISTI (MIT international science and technology initiatives) seed fund for collaboration between UCL and MIT on the topic of "Opinion Formation and Decision Making in Multi-Agent Social Networks".
- Belgian P.I. in a MISTI seed fund for collaboration between UCL and MIT on "Understanding social mobilization through timing".
- P.I. in the Euler (Experimental Updateless Evolutive Routing) strep FP7 project (2010-2013).

- WBI.International excellence fellowship for 2018-2019
- BAEF (Belgian American Educational Foundation) postdoctoral fellow for the period 2008-2009.
- FRS-FNRS (Belgian National Fund for Scientific research) postdoctoral fellow for 2008-2011.
- FRS-FNRS research fellow 2004-2008.

Editorial & Evaluation activities

- A.E. of Automatica (Impact factor 5.45), since September 2017.
- A.E. of Systems and Control Letters in 2012-2016 (Impact factor 1.88), about 50 papers treated.
- A.E. for the European Control Conference (ECC) 2013, 2015 andd 2019, the Symposium on Mathematical Theory of Networks and Systems (MTNS) 2014 and 2016, the 2014 IEEE Multi-Conference on systems and control and the IFAC Necsys workshop in 2015, 2016 and 2019 and member of scientific committee of WIDS@LIDS 2011 organized at MIT.

- Evaluator/reviewer for different national research agencies and for H2020 ERC proposals.
- Jury member (or opponent or evaluator) for PhD theses at UCLouvain, KTH Stockholm, Politecnico Torino, Telecom ParisTech and Université de Lorraine.

Institutional Responsibilities

- Chair of the department of mathematical engineering (INMA) from 2015 to 2018.
- Coordinator of all design projects for third year engineering students.
- Faculty coordinator of the entrepreneurship formation program Startech at UCL (http://startech.be/)

Teaching

I am teaching or have taught the following classes, some of them in collaboration with colleagues
- System identification
- Advanced Control and applications
- Project in Applied Mathematics
- Combinatorial optimization
- "Economie de l'entreprise" (bachelor class of economics for engineers)

I have also given lectures in a class on distributed aerospace systems in 2009 at M.I.T. (class 16.339)

Various

- Plenary speaker to the 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys18)
- Organizer of the 36th Benelux meeting on Systems and Control (3 days, 200 participants) in 2017.
- Plenary speaker at the DYSCO (dynamical systems, control and optimization) study day in Nov. 2011 and Nov. 2015.
- Invited speaker at the LCCC workshop on dynamics and control in Networks in Lund 2014, gathering experts in these fields (http://www.lccc.lth.se/index.php?page=workshop1410program)
- Invited Tutorial on "Consensus algorithms and phenomena" at Chalmers University in Oct. 2014. (http://www.chalmers.se/en/departments/s2/calendar/Pages/Seminar-Julien-Hendrickx_6-Oct-2014.aspx)
- Invited participant to the workshop "Analysis and Control of Network Dynamics" organized by the Institute for Mathematics and its Applications (directly funded by the NSF) in Oct. 2015.
- Invited speaker at a Workshop at the Royal Society on the future directions of networks mathematics in Nov 2016 organized in the context of the Newton institute.
- Invited participant and speaker to several multi-disciplinary workshops on privacy in data
- Invited Tutorial on "Consensus, synchronization and coordination" at the 8th IFAC symposium on Nonlinear Control Systems (NOLCOS 2010).
- Invited speaker and panelist at the workshop on natural algorithms of the center for computational intractability at Princeton in Nov. 2009 (prog. can be retrieved from http://intractability.princeton.edu/)

Selected seminars and research stays

M.I.T. (2019, 2014, 2012, 2011), **Yale** (2019,2006), **Princeton** (2019,2009)**, Northeastern**, (2019), **Boston University** (2019,2018,2016), **McGill,** Montreal (2017)**, Politecnico Torino** (2018, 2017, 2012), **KTH Stockholm** (2017, 2016, 2013, 2011, 2008), **Politecnico Milano,** (2017), **U. of Hong-Kong,** (2015), **University of Illinois** (2015, 2004), **Lund** Sweden (2014, 2012)**, Chalmers** Sweden (2014), **U. Grenoble** France (2014), **INRIA Bordeaux** France (2014), **R.U Groningen,** Netherlands (2012)**, Telecom Paristech** (2012)**, ETH Zurich** Switzerland (2011, 2008), **Georgia Tech** USA (2006), **ANU** Australia (2006, 2005).

Citation Indicators

Google Scholar (June 2019):   3734 citations   h-index: 26   i10 index: 51
Scopus   2288 citations   h-index: 19

Publications

Below a list of 40 accepted/published journal articles, 39 peer-reviewed conference articles and 1 book. Most of those can be downloaded from http://perso.uclouvain.be/julien.hendrickx/publi.html

Journal articles:

1. Julien M. Hendrickx, Balazs Gerencsér and Baris Fidan **Trajectory convergence from coordinate-wise decrease of quadratic energy functions, and applications to platoons** , to appear in IEEE Control Systems Letters.

2. Balazs Gerencsér and Julien M. Hendrickx, **Improved mixing rates of directed cycles by added connection**, Volume 32, Issue 2, pp 684-701, 2019

3. Julien M. Hendrickx, Michel Gevers and Alexandre S. Bazanella, **Identifiability of dynamical networks with partial node measurements,** to appear in IEEE Transactions on Automatic Control.

4. Franck Iutzeler and Julien M. Hendrickx, A Generic Linear Rate Acceleration of Optimization algorithms via Relaxation and Inertia**, Optimization Methods and Software**, Volume 34, issue 2, pages 383-405, 2019.

5. Mickael Temporao, Corentin Vande Kerckhove, Clifton van der Linden, Yannick Dufresne and Julien M. Hendrickx **Ideological Scaling of Social Media Users: A Dynamic Lexicon Approach,** Political analysis Volume 26 Issue 4, pages 457-473, 2018.

6. Adrien Taylor, Julien M. Hendrickx and Francois Glineur, Exact worst-case convergence rates of the proximal gradient method for composite convex minimization**, Journal of Optimization Theory and Applications (JOTA)** , Volume 178, Issue 2, pages 455-476, 2018.

7. Balazs Gerencsér and Julien M. Hendrickx, **Push sum with transmission failures,** IEEE Transactions on Automatic Control, Volume 64, number 3, pages 1019-1033, 2018.

8. Tao Liu, Ming Cao, Claudio de Persis and Julien M. Hendrickx, **Distributed Event-Triggered Control for Asymptotic Synchronization of Dynamical Networks,** Automatica, volume 86, pages 199-2004, 2017.

9. Estelle M. Massart, Julien M. Hendrickx and P.-A. Absil, **Matrix geometric means based on shuffled inductive sequences,** volume 252, pages 334-359, 2018.

10. Pierre-Yves Chevalier, Julien M. Hendrickx and Raphaël M. Jungers, **Tight Bounds for Consensus Systems Convergence,** System and Control Letters, volume 105, pages 78-83, 2017.

11. Alexandre Mauroy and Julien M. Hendrickx, **Spectral identification of networks using sparse measurements,** SIAM Journal of Applied Dynamical Systems (SIADS), volume 16, number 1, pages 479-513, 2017.

12. Adrien B. Taylor, Julien M. Hendrickx and François Glineur, **Exact Worst-case Performance of First-order Algorithms for Composite Convex Optimization,** SIAM journal on Optimization (SIOPT), volume 27, number 3, pages 1283-1313, 2017.

13. Arnaud Browet, Julien M. Hendrickx and Alain Sarlette, **Incompatibility boundaries for properties of community partitions,** IEEE Transactions on Network Science and Engineering Volume 5, issue 1, 32-41, 2017.

14. Julien M. Hendrickx and Alex Olshevsky, **On symmetric continuum opinion dynamics,** SIAM Journal on Control and Optimization (SICON), volume 54, issue 5, pages 2893-2918, 2016.

15. Corentin Vande Kerckhove, Samuel Martin, Pascal Gend, Peter J. Rentfrow, Julien M. Hendrickx and Vincent D. Blondel, **Modeling influence and opinion evolution in online collective behavior,** PLOS ONE, volume 11 number 6: e0157685, 2016

16. Adrien B. Taylor, Julien M. Hendrickx and François Glineur, **Smooth Strongly Convex Interpolation and Exact Worst-case Performance of First-order Methods,** Mathematical Programming, volume 61, number 1, pages 307–345, 2017.

17. Samuel Martin and Julien M. Hendrickx, **Continuous-Time Consensus under Non-Instantaneous Reciprocity,** IEEE Transactions on Automatic Control, volume 61, issue 9, pages 2484-2495, 2015

18. Pierre-Yves Chevalier, Julien M. Hendrickx and Raphaël M. Jungers, **Efficient Algorithms for the Consensus Decision Problem,** SIAM Journal on Control and Optimization (SICON) volume 53, issue 5, pages 3104-3119, 2015.

19. Paolo Frasca, Federica Garin, Balazs Gerencser and Julien M. Hendrickx, **One-dimensional coverage by unreliable sensors,** SIAM Journal on Control and Optimization (SICON) volume 53, issue 5, 3120-3140, 2015.

20. Julien M. Hendrickx, Guodong Shi and Karl Henrik Johansson, **Finite-time consensus using stochastic matrices with positive diagonals,** IEEE Transactions on Automatic Control, Volume 60, Issue 4, pages 1070-1073, 2015.

21. Julien M. Hendrickx, Karl Henrik Johansson, Raphael M. Jungers, Henrik Sandberg and Kin Cheong Sou, **Efficient Computations of a Security Index for False Data Attacks in Power Networks,** IEEE Transactions on Automatic Control, volume 59, issue 12, pages 3194-3208, 2014.

22. Julien M. Hendrickx, Raphael M. Jungers, Alex Olshevsky and Guillaume Vankeerberghen, **Graph diameter, eigenvalues, and minimum-time consensus,** Automatica, volume 50, issue 2, pages 635-640, 2014.

23. Julien M. Hendrickx, **Views in a graph: to which depth must equality be checked?,** IEEE Transactions on Parallel and Distributed Systems, Volume 25, Issue 7, pages 1907-1912, 2014

24. Paolo Frasca and Julien M. Hendrickx, **On the mean square error of randomized averaging algorithm**, Automatica, volume 49, issue 8, pages 2496-2501, 2013.

25. Julien M. Hendrickx and John Tsitsiklis, **Convergence of type-symmetric and cut-balanced consensus seeking systems**, IEEE Transactions on Automatic Control, volume 58, issue 1, pages 214-218, 2013.

26. Julien M. Hendrickx, Alex Olshevsky and John N. Tsitsiklis, **Distributed anonymous discrete function computation and averaging,** IEEE Transactions on Automatic Control, volume 56, issue 10, p. 2276-2289, 2011.

27. Vincent D. Blondel, Julien M. Hendrickx and John N. Tsitsiklis, **Continuous-time average-preserving opinion dynamics with opinion-dependent communications,** SIAM Journal on Control and Optimization (SICON), volume 48, issue 8, pages 5214-5240, 2010.

28. Julien M. Hendrickx and Alex Olshevsky, **Matrix P-norms are NP-hard to approximate if p ≠ 1,2, ∞,** SIAM Journal on Matrix Analysis and Applications (SIMAX), volume 31, issue 5, pages 2802-2812, 2010.

29. Baris Fidan, Julien M. Hendrickx and Brian D.O. Anderson, **Closing Ranks in Rigid Multi-Agent Formations Using Edge Contraction,** International Journal of Robust and Nonlinear Control, volume 20, issue 18, pages 2077-2092, 2010.

30. Vincent D. Blondel, Julien M. Hendrickx and John N. Tsitsiklis, **On Krause's consensus formation model with state-dependent connectivity,** IEEE Transactions on Automatic Control, volume 54, issue 11, pages 2586-2597, 2009.

31. Brian D.O. Anderson, Changbin Yu, Baris Fidan and Julien M. Hendrickx, **Control and Information Architectures for Autonomous Formations,** IEEE Control Systems Magazine, volume 28, issue 6, pages 46-63, 2008.

32. Julien M. Hendrickx, **Order preservation in a generalized version of Krause's opinion dynamics model,** Physica A, volume 387, Issue 21, Pages 5255-5262, 2008.

33. Vincent D. Blondel, Julien M. Hendrickx and Raphaël Jungers, **Linear time algorithms for clobber**, Electronic Journal of Combinatorial Number Theory, volume 4, G8, 2008.

34. Vincent D. Blondel, Jean-Loup Guillaume, Julien M. Hendrickx, Cristobald de Kerchove and Renaud Lambiotte, **Local Leaders in Random Networks,** Physical Review E, volume 77, 036144, 2008.

35. Julien M. Hendrickx, Changbin Yu, Baris Fidan, and Brian D.O. Anderson, **Rigidity and persistence for ensuring shape maintenance in multiagent meta-formations,** Asian Journal of Control, Volume 10, Issue 2, pages 131-143, 2008.

36. Vincent D. Blondel, Jean-Loup Guillaume, Julien M. Hendrickx and Raphaël Jungers, **Distance distribution in random graphs and application to complex networks exploration,** Physical Review E, 72, 066101, 2007.

37. Julien M. Hendrickx, Baris Fidan, Changbin Yu, Brian D.O. Anderson and Vincent D. Blondel, **Formation Reorganization by Primitive Operations on Directed Graphs,** IEEE Transactions on Automatic Control, volume 53, issue 4, pages 968-970, 2008.

38. Changbin Yu, Julien M. Hendrickx, Baris Fidan, Brian D. O. Anderson, Vincent D. Blondel, **Three and higher dimensional autonomous formations: rigidity, persistence and structural persistence.** Automatica, Volume 43, Issue 3, pages 387-402, 2007.

39. Julien M. Hendrickx, Brian D.O. Anderson, Jean-Charles Delvenne and Vincent D. Blondel, **Directed graphs for the analysis of rigidity and persistence in autonomous agents systems,** International Journal of Robust and Nonlinear Control, volume 17, issue 10, pages 960-981, 2007.

40. Julien M. Hendrickx, Philippe H. Geubelle and Nancy R. Sottos, **A spectral scheme for the simulation of dynamic mode 3 delamination of thin films,** Engineering Fracture Mechanics, Volume 72, Issue 12, Pages 1866-1891, 2005.

Book chapter:

1. Baris Fidan, Brian D.O. Anderson, Changbin Yu and Julien M. Hendrickx, **Persistent autonomous formations and cohesive motion control**, in Modeling and Control of Complex Systems, P. Ioannou and A. Pitsillides (ed.), CRC Press, 2007.

Conference articles (peer-reviewed):

1. Julien M. Hendrickx, Alex Olshevsky and Venkatesh Saligrama, **Graph Resistance and Learning from Pairwise Comparisons,** Proceedings of the 36th International Conference on Machine Learning (ICML2019), Long Beach, CA, USA, June 2019.

2. Julien M. Hendrickx and Samuel Martin **Open Multi-Agent Systems: Gossiping with Random Arrivals and Departures** Proceedings of the 56th IEEE Conference on Decision and Control (CDC 2017), Melbourne (Australia), December 2017.

3. Mahmoud Abdelrahim, Julien M. Hendrickx and W.P.M.H. Heemels **MAX-consensus in open multi-agent systems with gossip interactions** Proceedings of the 56th IEEE Conference on Decision and Control (CDC 2017), Melbourne (Australia), December 2017.

4. Adrien B. Taylor, Julien M. Hendrickx and François Glineur **Performance Estimation Toolbox (PESTO): automated worst-case analysis of first-order optimization methods** Proceedings of the 56th IEEE Conference on Decision and Control (CDC 2017), Melbourne (Australia), December 2017

5. Alexandre S. Bazanella, Michel Gevers, Julien M. Hendrickx and Adriane Parraga, **Identifiability of dynamical networks: which nodes need be measured?** Proceedings of the 56th IEEE Conference on Decision and Control (CDC 2017), Melbourne (Australia), December 2017.

6. Alexandre Mauroy and Julien M. Hendrickx, **Spectral identification of networks with inputs** Proceedings of the 56th IEEE Conference on Decision and Control (CDC 2017), Melbourne (Australia), December 2017.

7. Pierre-Yves Gousenbourger, Estelle Massart, Antoni Musolas, P.-A. Absil, Julien M. Hendrickx, Laurent Jacques and Youssef Marzouk **Piecewise-Bézier C^1 smoothing on manifolds with application to wind field estimation** Proceedings of the 25th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2017), April 2017.

8. Julien M. Hendrickx and Samuel Martin, **Open Multi-Agent Systems: Gossiping with Deterministic Arrivals and Departures.** Proceedings of the Fifty-Fourth Annual Allerton Conference on Communication, Control, and Computing, Monticello, Illinois, September 2016.

9. Dimitri de Smet, Marc Francaux, Julien M. Hendrickx and Michel Verleysen, **Heart rate modelling as a potential physical fitness assessment for runners and cyclists.** Proceedings of the Machine Learning and Data Mining for Sports Analytics Workshop at ECML/PPKD. Riva del Garda, Italy, September 2016

10. Corentin Vande Kerckhove, Samuel Martin, Pascal Gend and Julien M. Hendrickx **The unpredictability of human opinion dynamics**. Proceedings of the 2nd Annual International Conference on Computational Social Science, (ICCSS 2016), Evanston (IL, USA), June 2016.

11. Estelle M. Massart, Julien M. Hendrickx, P.-A. Absil **Extending a two-variable mean to a multi-variable mean** 24th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2016), Bruges, Belgium, April 2016

12. Pierre-Yves Chevalier, Julien M. Hendrickx and Raphaël Jungers, **Reachability of Consensus and Synchronizing Automata.** Proceedings of the 54rd IEEE Conference on Decision and Control (CDC 2015), Osaka (Japan), December 2015.

13. Riccardo Lucchese, Damiano Varagnolo, Jean-Charles Delvenne and Julien Hendrickx, **Network cardinality estimation using max consensus: the case of Bernoulli trials.** Proceedings of the 54rd IEEE Conference on Decision and Control (CDC 2015), Osaka (Japan), December 2015.

14. Julien M. Hendrickx and John N. Tsitsiklis, **Fundamental limitations for anonymous distributed systems with broadcast communications.** Proceedings of the Fifty-Third Annual Allerton Conference on Communication, Control, and Computing, Monticello, Illinois, September 2015.

15. Balazs Gerencser, Julien M. Hendrickx and Paul Van Dooren **Spectral gap of Markov chains on a cycle.** Proceedings of the European Control Conference 2015 (ECC'15), Linz (Austria), July 2015.

16. Julien M. Hendrickx, **A Lifting Approach to Models of Opinion Dynamics with Antagonisms.** Proceedings of the 53rd IEEE Conference on Decision and Control (CDC 2014), Los Angeles (CA, USA), December 2014.

17. Pierre-Yves Chevalier, Julien M. Hendrickx and Raphael M. Jungers, **A switched Systems approach to the decidability of consensus.** Proceedings of the 21st International Symposium on Mathematical Theory of Networks and Systems (MTNS 2014), Groningen (The Netherlands), July 2014.

18. Guillaume Vankeerberghen, Julien M. Hendrickx, Raphael M. Jungers, Laurence A. Wolsey, **An efficient technique for solving the scheduling of appliances in smart-homes.** Proceedings of the 2014 American Control Conference (ACC 2014), Portland (OR, USA), June 2014.

19. Guillaume Vankeerberghen, Julien M. Hendrickx, Raphael M. Jungers, **JSR: a toolbox for computing the Joint Spectral Radius.** Proceedings of the 17th International Conference on Hybrid Systems: Computation and Control (HSCC 2014), Berlin (Germany), April 2014.

20. Julien M. Hendrickx and Alex Olshevsky, **Symmetric Continuum Opinion Dynamics: Convergence, but sometimes only in Distribution** Proceedings of The 52nd IEEE Conference on Decision and Control (CDC 2013), Florence (Italy), December 2013.

21. Claudio De Persis, Paolo Frasca and Julien M. Hendrickx **Self-triggered rendezvous of gossiping second-order agents,** Proceedings of The 52nd IEEE Conference on Decision and Control (CDC 2013), Florence (Italy), December 2013.

22. Tao Liu, Ming Cao, Claudio De Persis and Julien M. Hendrickx, **Distributed Event-Triggered Control for Synchronization of Dynamical Networks with Estimators** Proceedings of The 4th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys 2013), Koblenz (Germany), September 2013.

23. Paolo Frasca and Julien M. Hendrickx, **Large network consensus is robust to packet losses and interferences,** Proceedings of European Control Conference 2013 (ECC'13), Zurich (Switzerland), July 2013.

24. Julien M. Hendrickx and John N. Tsitsiklis, **A new condition for convergence in continuous-time consensus seeking systems.** Proceedings of the 50th IEEE Conference on Decision and Control (CDC 2011), Orlando (FL, USA), December 2011.

25. Vincent D. Blondel, Julien M. Hendrickx and John N. Tsitsiklis, **Opinion dynamics for agents with opinion-dependent connections.** Proceedings of the 49th IEEE Conference on Decision and Control (CDC 2010), Atlanta (GA, USA), December 2010.

26. Alexandre Mauroy, Julien. M. Hendrickx, Alexandre Megretski and Rodolphe Sepulchre **Global analysis of Firing Maps**. Proceedings of the 19th International Symposium on Mathematical Theory of Networks and Systems (MTNS2010), Budapest (Hungary), July 2010.

27. Julien M. Hendrickx, Alex Olshevsky and John N. Tsitsiklis, **Distributed Anonymous Function Computation in Information Fusion and Multiagent Systems**. Proceedings of the Forty-Seventh Annual Allerton Conference on Communication, Control, and Computing, Monticello, Illinois, September 2009.

28. Baris Fidan, Julien M. Hendrickx, and Brian D.O. Anderson, **Edge contraction based maintenance of rigidity in multi-agent formations during agent loss**. Proc. 17th Mediterranean Conference on Control and Automation, Thessaloniki, Greece, June 2009.

29. Vincent D. Blondel, Julien M. Hendrickx and John N. Tsitsiklis, **On the 2R conjecture for multi-agent systems.** Proceedings of the European control conference 2007 (ECC 2007), Kos (Greece), 874-881, July 2007.

30. Julien M. Hendrickx, Changbin Yu, Baris Fidan, Brian D.O. Anderson, **Rigidity and Persistence of Meta-Formations.** Proceedings of the 45th IEEE Conference on Decision and Control, San Diego (CA, USA), 5980-5985, December 2006.

31. Changbin Yu, Baris Fidan, Julien M. Hendrickx, Brian D.O. Anderson, **Merging Multiple Formations: A Meta-Formation Prospective.** Proceedings of the 45th IEEE Conference on Decision and Control, San Diego (CA, USA), 4657-4663, December 2006.

32. Brian D. O. Anderson, Changbin Yu, Baris Fidan and Julien M. Hendrickx, **Control and Information Architectures for Formations,** Proceedings of the IEEE International Conference on Control Applications (CCA), München (Germany), 1127-1138, October 2006.

33. Brian D. O. Anderson, Changbin Yu, Baris Fidan and Julien M. Hendrickx, **Use of Meta-Formations for Cooperative Control,** Proceedings of the 17th International Symposium on Mathematical Theory of Networks and Systems (MTNS2006), Kyoto (Japan), 2381-2387, July 2006.

34. Julien M. Hendrickx and Vincent D. Blondel **Convergence of different linear and non-linear Vicsek models,** Proceedings of the 17th International Symposium on Mathematical Theory of Networks and Systems (MTNS2006), Kyoto (Japan), 1229-1240, July 2006.

35. Julien M. Hendrickx, Baris Fidan, Changbin Yu, Brian D. O. Anderson and Vincent Blondel **Elementary operations for the reorganization of minimally persistent formations,** Proceedings of the 17th International Symposium on Mathematical Theory of Networks and Systems (MTNS2006), Kyoto (Japan), 859-873, July 2006.

36. Vincent D. Blondel, Julien M. Hendrickx, Alex Olshevsky, and John N. Tsitsiklis, **Convergence in Multiagent Coordination, Consensus, and Flocking,** Proceedings of the 44th IEEE Conference on Decision and Control, Sevilla (Spain), December 2005.

37. Julien M. Hendrickx, Brian D. O. Anderson and Vincent D. Blondel, **Rigidity and persistence of directed graphs**, Proceedings of the 44th IEEE Conference on Decision and Control, Sevilla (Spain), December 2005.

38. Julien M. Hendrickx, Baris Fidan, Changbin Yu, Brian D.O. Anderson, and Vincent D. Blondel, **Rigidity and Persistence of Three and Higher Dimensional Formations,** Proceedings of the 1st International workshop on Multi-Agent Robotic Systems MARS 2005, Barcelona (Spain), 39-46, September 2005.

39. Changbin Yu, Julien M. Hendrickx, Baris Fidan, Brian D.O. Anderson **Structural Persistence of Three Dimensional Autonomous Formations** Proceedings of the 1st International workshop on Multi-Agent Robotic Systems MARS 2005, Barcelona (Spain), 47-55, September 2005.

40. Philippe. H. Geubelle, Julien M. Hendrickx and Nancy R. Sottos **Spectral Scheme for the analysis of Dynamic Delamination of a Thin Film,** Proceedings of ICF XI International Symposium on Fracture Mechanics, Turin (Italy), March 2005.