

SWARM Related Formations and Sensor Network Publications

(06 August 2009)

Abstract: This is a comprehensive list of publications by SWARM participants since 2005 dealing with any aspect of formations and sensor networks. They are categorized in terms of the SWARM topic to which each publication is related the most.

Topic 1: Characterization of Health of General Formations/Sensor Networks/Swarms

A. Edited Book

1. G. Mao and B. Fidan (editors), *Localization Algorithms and Strategies for Wireless Sensor Networks*, IGI Global - Information Science Publishing, ISBN 1-60566-396-4, 2009.

B. Chapters in Books:

2. G. Mao, B. Fidan, B.D.O. Anderson, "Localization", Chapter 13 in *Sensor Network and Configuration: Fundamentals, Techniques, Platforms and Experiments* (ed. N.P. Mahalik), Springer-Verlag, pp. 281-315, 2006.
3. B. Fidan, S. Dasgupta, and B.D.O. Anderson, "Realistic anchor positioning for sensor localization," to appear in *Recent Advances in Learning and Control*, V.D. Blondel, S.P. Boyd, and H. Kimura (ed.), Lecture Notes in Control and Information Sciences 371, Springer-Verlag, pp. 79-94, 2008.
4. G. Mao, B.D.O. Anderson, B. Fidan, J. Fang and A.S. Morse, "On the critical connectivity radii in WM2SNets," in *Wireless Mesh Networking*, George Aggelou (ed.), McGraw-Hill, pp. 50-59, 2008.

C. Articles/notes/communications in refereed journals:

5. A.A. Kannan, G. Mao and B. Vucetic, "Simulated annealing based wireless sensor network localization", *Journal of Computers*, no. 2, pp. 15-22, May 2006.
6. M. Cao, A.S. Morse, and B.D.O. Anderson, "Sensor Network Localization with Imprecise Distances," *System and Control Letters*, vol 55, pp 887-893, Nov 2006.
7. J. Aspnes, T. Eren, D. Goldenberg, A. Morse, W. Whiteley, Y. Yang, and B.D.O. Anderson and P. Belhumeur, "A theory of network localization," *IEEE Trans Mobile Computing*, vol 5, no. 12, pp.1663-1678, December 2006.
8. C. Yu, J.M. Hendrickx, B. Fidan, and B.D.O. Anderson, "Three and Higher Dimensional Autonomous Formations: Rigidity, Persistence and Structural Persistence", *Automatica*, vol. 43, no. 3, pp. 387-402, March 2007.
9. B. Fidan, C. Yu, and B.D.O. Anderson, "Acquiring and Maintaining Persistence of Autonomous Multi-Vehicle Formations", *IET Control Theory & Applications*, vol. 1, no. 2, pp. 452-460, March 2007.

10. B.D.O. Anderson, P. Belhumeur, T. Eren, D. Goldenberg, A.S. Morse, W. Whiteley and Y.Y. Yang, "Graphical Properties of Easily Localizable Sensor Networks," *Wireless Networks (Springer)*, Volume 15, No.2, pp. 177-191, February 2009.
11. J.M. Hendrickx, B.D.O. Anderson, J-C. Delvenne, and V. Blondel, "Directed graphs for the analysis of rigidity and persistence in autonomous agents systems," *International Journal of Robust and Nonlinear Control*, Vol. 17, no. 10-11, pp. 960-981, July 2007.
12. G. Mao, B.D.O. Anderson, and B. Fidan, "Path loss exponent estimation for wireless sensor network localization", *Computer Networks*, vol. 51, no. 10, pp. 2467-2483, July 2007.
13. G. Mao, B. Fidan, and B.D.O. Anderson, "Wireless sensor network localization techniques", *Computer Networks*, vol. 51, no. 10, pp. 2529-2553, July 2007.
14. Xiaoyuan Ta, Guoqiang Mao and Brian D. O. Anderson, "On the probability of k-hop connection in wireless sensor networks", *IEEE Communications Letters*, Volume 11, Issue 8, pp 662 – 664, August 2007.
15. J.M. Hendrickx, C. Yu, B. Fidan, and B.D.O. Anderson, "Rigidity and persistence for ensuring shape maintenance of multiagent meta formations," *Asian Journal of Control*, vol. 10, no. 2, pp. 131-143, March 2008.
16. J.M. Hendrickx, B. Fidan, C. Yu, B.D.O. Anderson, and V.D. Blondel, "Primitive operations for the construction and reorganization of persistent formations," *IEEE Trans. on Automatic Control*, vol. 53, no. 4, pp. 968-979, May 2008.
17. B. Fidan, S. Dasgupta and B.D.O. Anderson, "Guaranteeing Practical Convergence in Algorithms for Sensor and Source Localization", *IEEE Trans. on Signal Processing*, vol. 56, no. 9, pp. 4458-4469, September 2008.
18. B.D.O. Anderson, C. Yu, B. Fidan, and J.M. Hendrickx, "Rigid graph control architectures for autonomous formations," *IEEE Control Systems Magazine*, vol. 28, no. 6, pp. 48-63, December 2008.
19. S.H. Dandach, B. Fidan, S. Dasgupta and B.D.O. Anderson, "A Continuous Time Linear Adaptive Source Localization Algorithm Robust to Persistent Drift," *Systems & Control Letters*, vol. 58, no. 1, pp. 7-16, January 2009.
20. I. Shames, B. Fidan, and B.D.O. Anderson, "Self-localization error reduction in multi-agent autonomous systems," *Automatica*, vol. 45, no. 4, pp. 1058-1065, April 2009.
21. C. Yu and B.D.O. Anderson, "Development of Redundant Rigidity Theory for Formation Control", to appear in *International Journal of Robust and Nonlinear Control*, DOI:10.1002/rnc.1386, available online.
22. T. Summers, C. Yu, and B.D.O. Anderson, "Addressing agent failure in vehicle formations and sensor networks", to appear in *International Journal of Robust and Nonlinear Control*, DOI:10.1002/rnc.1400, available online.
23. X. Ta, G. Mao and B.D.O. Anderson, "On the Phase Transition Width of K-connectivity in Wireless Multi-hop Networks", *IEEE Transactions on Mobile Computing*, Vol 8, No 7, pp. 936-949, 2009.

24. X. Ta, G. Mao and B.D.O. Anderson,, “Critical power for connectivity of wireless multi-hop networks in the presence of shadowing,” submitted to IEEE Transactions on Mobile Computing.

D. Refereed conference papers

25. J.M. Hendrickx, B. Fidan, C. Yu, B.D.O. Anderson and V.D. Blondel, “Rigidity and Persistence of Three and Higher Dimensional Formations,” in *Proc. 1st International Workshop on Multi-agent Robotic Systems (in conj. with the 2nd International Conference on Informatics in Control, Automation and Robotics)*, pp 39 – 46, Barcelona, Spain, September 2005.
26. C. Yu, J.M. Hendrickx, B. Fidan and B.D.O. Anderson, “Structural Persistence of Three Dimensional Autonomous Formations,” in *Proc. 1st International Workshop on Multi-agent Robotic Systems (in conj. with the 2nd International Conference on Informatics in Control, Automation and Robotics)*, pp 47 – 55, Barcelona, Spain, September 2005.
27. A. Kannan, G. Mao, and B. Vucetic, “Simulated annealing based localization in wireless sensor network”, *The 30th Annual IEEE Conference on Local Computer Networks*, pp. 513-514, November 2005.
28. C. Yu, B. Fidan and B.D.O. Anderson, “Persistence Acquisition and Maintenance for Autonomous Formations,” in *Proc. 2nd International Conference on Intelligent Sensors, (ISSNIP)*, pp 379 – 384, Melbourne December 2005.
29. M. Cao, B.D.O. Anderson, and A.S. Morse, “Localization with Imprecise Distance Information in Sensor Networks”, in *Proc. 44th IEEE Conference on Decision and Control and the European Control Conference*, pp 2829 – 2834, Seville, Spain, Dec 2005.
30. J.M. Hendrickx, B.D.O. Anderson, and V. Blondel, “Rigidity and Persistence of Directed Graphs,” *Proc. 44th IEEE Conference on Decision and Control and the European Control Conference 2005*, pp 2176 – 2181, Seville, Spain, Dec 2005.
31. A. Kannan, G. Mao, and B. Vucetic, “Simulated annealing based wireless sensor network localization with flip ambiguity mitigation”, in *IEEE Vehicular Technology Conference*, 5 pp, May 2006.
32. C. Yu, B. Fidan, B.D.O. Anderson, “Principles to Control Autonomous Formation Merging,” in *Proc. American Control Conference*, pp. 762-768, June 2006.
33. J. Fang, M. Cao, A.S. Morse and B.D.O. Anderson, “Sequential Localization of Networks,” in *Proc. 17th International Symposium on Mathematical Theory of Networks and Systems*, pp. 218-222, July 2006.
34. J.M. Hendrickx B. Fidan, C. Yu, B.D.O. Anderson and V.D. Blondel, “Elementary operations for the reorganization of minimally persistent formations,” in *Proc. 17th International Symposium on Mathematical Theory of Networks and Systems*, p.p. 859—873, July 2006.
35. B.D.O. Anderson, C. Yu, B. Fidan and J.M. Hendrickx, “Use of Meta-formations for Cooperative Control,” in *Proc. 17th International Symposium on Mathematical Theory of Networks and Systems*, p.p. 2381-2387, July 2006.
36. B.D.O. Anderson, C. Yu, B. Fidan, and J.M. Hendrickx, “Control and Information Architectures for Formations”, in *Proc. IEEE Conference on Control Applications (Joint CCA/CACSD/ISIC)*, pp. 1127-1138, October 2006.

37. G. Mao, B. D. O. Anderson, and B. Fidan, "Online calibration of path loss exponent in wireless sensor networks", 6 pp., in *Proc. IEEE Global Telecommunications Conference (Globecom)*, December 2006.
38. C. Yu, B. Fidan, J.M. Hendrickx and B.D.O. Anderson, "Merging Multiple Formations: A Meta-formation Prospective", in *Proc. 45th IEEE Conference on Decision and Control*, pp. 4657-4663, San Diego, CA, USA, December 2006.
39. J.M. Hendrickx, C. Yu, B. Fidan and B.D.O. Anderson, "Rigidity and Persistence of Meta-Formations", in *Proc. 45th IEEE Conference on Decision and Control*, pp. 5980-5985, San Diego, CA, USA, December 2006.
40. S.H. Dandach, B. Fidan, S. Dasgupta and B.D.O. Anderson, "Adaptive Source Localization by Mobile Agents," in *Proc. 45th IEEE Conference on Decision and Control*, pp. 2045-2050, San Diego, CA, USA, December 2006.
41. J. Fang, M. Cao, A.S. Morse and B.D.O. Anderson, "Localization of Sensor Networks Using Sweeps," in *Proc. 45th IEEE Conference on Decision and Control*, pp. 4645-4650, San Diego, CA, USA, December 2006.
42. D.K. Goldenberg, P. Bihler, M. Cao, J. Fang, B.D.O. Anderson, A.S. Morse, and Y.R. Yang, "Localization in Sparse Sensor Networks using Sweeps," in *Proc. ACM MobiCom 2006*, pp. 110-121, September 2006.
43. A. Kannan, B. Fidan, G. Mao, and B. D. O. Anderson, "Analysis of Flip Ambiguities in Distributed Network Localization," in *Proc. Information, Decision and Control Conference - IDC 2007*, pp. 193-198, Adelaide, SA, Australia, February 2007.
44. B. Fidan, S. Dasgupta and B.D.O. Anderson, "Conditions for guaranteed convergence in sensor and source localization", in *Proc. 32nd International Conference on Acoustics, Speech, and Signal Processing (ICASSP-2007)*, vol.2, pp. 1081-1084, Honolulu, Hawaii, USA, April 2007.
45. B.D.O. Anderson, C. Yu, and B. Fidan, "Information architecture and control design for rigid formations", in *Proc. 26th Chinese Control Conference (CCC'07)*, pp. 2-10, Zhangjiajie Hunan, China, July 2007.
46. Xiaoyuan Ta, Guoqiang Mao and Brian D. O. Anderson, "Evaluation of the Probability of K-hop Connection in Homogeneous Wireless Sensor Networks", in *IEEE Global Telecommunications Conference (Globecom)*, November, 2007.
47. I. Shames, B. Fidan, and B.D.O. Anderson, "Reduction of self-localization errors in multi-agent autonomous formations," in *Proc. 17th World Congress of Int. Federation of Automatic Control (IFAC'08)*, pp. 6578-6583, Seoul, Korea, July 2008.
48. C. Yu, B.D.O. Anderson, "Agent and Link Redundancy for Autonomous Formations", in *Proc. 17th World Congress of Int. Federation of Automatic Control (IFAC'08)*, pp. 6584-6589, Seoul, Korea, July 2008.
49. T. Summers, C. Yu, B.D.O. Anderson, "Decentralized Closing Ranks in Vehicle Formations and Sensor Networks", in *Proc. 16th Mediterranean Conference on Control and Automation*, pp. 1137-1143, Corsica, France, June 2008.
50. T. Summers, C. Yu, B.D.O. Anderson, "Robustness to Agent Loss in Vehicle Formation and Sensor Networks", in *Proc. IEEE CDC 2008*, Cancun, Mexico, Dec 2008

51. Xiaoyuan Ta, Guoqiang Mao and Brian D.O. Anderson “On the Connectivity Properties of Wireless Multi-hop Networks”, in *Proc. Int. Conf. on Communications and Networking*, China.
52. Xiaoyuan Ta, Guoqiang Mao and Brian D.O. Anderson, “Phase Transition Properties in k-connected Wireless Multi-hop Networks”, in *Proc. IEEE Global Telecommunications Conference (Globecom)*, New Orleans, LA, USA, Nov.-Dec. 2008.
53. Anushiya Kannan, Baris Fidan and Guoqiang Mao, “Robust Distributed Sensor Network Localization Based on Analysis of Flip Ambiguities”, in *Proc. IEEE Global Telecommunications Conference (Globecom)*, New Orleans, LA, USA, Nov.-Dec. 2008.
54. X. Ta, G. Mao and B.D.O. Anderson, “On the properties of giant component in wireless multi-hop networks,” in *Proc. IEEE Infocom 2009*.
55. Ng, S.C., Mao, G., Anderson, B.D.O., “Energy savings achievable in connection preserving energy saving algorithms,” in *Proc. WCNC 2009*, Budapest, Hungary, March 2009
56. Mao, G., Anderson, B.D.O., “Graph theoretic models and tools for the analysis of dynamic wireless multihop networks,” in *Proc. WCNC 2009*, Budapest, Hungary, March 2009
57. Ta, X., Mao, G., Anderson, B.D.O., “On the giant component in wireless multi-hop networks,” in *Proc. WCNC 2009*, Budapest, Hungary, March 2009
58. Ta, X., Mao, G., Anderson, B.D.O., “On the giant component in wireless multi-hop networks,” to appear in *Proc. WCNC 030908*
59. Huang, B., Yu, C., Anderson, B.D.O., “On the Planar Approximation in Sensor Localization Problems,” in *Proc. ISSNIP 2008*.
60. I. Shames, B.D.O. Anderson, X.F. Wang, and B. Fidan, “Network synchronizability enhancement using convex optimization,” to appear in *Proc. European Control Conference*, Budapest, Hungary, August 2009.

Topic 2: Specific Tasks Related to the DSTO/NICTA Emitter Localisation Scenario

A. Chapters in Books

61. B.D.O. Anderson, B. Fidan, C. Yu, and D. van der Walle, "UAV formation control: Theory and application," to appear in *Recent Advances in Learning and Control*, V.D. Blondel, S.P. Boyd, and H. Kimura (ed.), Lecture Notes in Control and Information Sciences 371, Springer-Verlag, pp. 15-34, 2008.

B. Articles/notes/communications in refereed journals:

62. A.N. Bishop, B. Fidan, K. Dogancay, B.D.O. Anderson, and P.N. Pathirana, "Exploiting geometry for improved hybrid AOA/TDOA based localization," *Signal Processing, Signal Processing*, vol. 88, no. 7, pp. 1775-1791, July 2008.
63. A.N. Bishop, B. Fidan, B.D.O. Anderson, K. Dogancay, and P.N. Pathirana, “Optimal range-difference based localization considering geometrical constraints,” *IEEE Journal of Oceanic Engineering*, vol. 33, no. 3, pp. 289-301, July 2008.
64. A.N. Bishop, B.D.O. Anderson, B. Fidan, P.N. Pathirana, and G. Mao, “Bearing-only localization using geometrically constrained optimization”, to appear in *IEEE Trans. on Aerospace and Electronic Systems*.

65. A.N. Bishop, B. Fidan, B.D.O. Anderson, K. Dogancay, and P.N. Pathirana, "Optimality analysis of sensor-target localization geometries," under revision.
66. I. Shames, B. Fidan, B.D.O. Anderson, and H. Hmam, "Cooperative self-localization of mobile agents moving in planar formations," under revision.

C. Refereed conference papers

67. A.N. Bishop, P.N. Pathirana, B. Fidan, B.D.O. Anderson, and G. Mao, "Passive Angle Measurement Based Localization Consistency via Geometric Constraints", in *Proc. Information, Decision and Control Conference - IDC 2007*, pp. 199-204, Adelaide, SA, Australia, February 2007.
68. G. Mao, S. Drake, and B. D. O. Anderson, "Design of an Extended Kalman Filter for UAV Localization", in *Proc. Information, Decision and Control Conference - IDC 2007*, pp. 224-229, Adelaide, SA, Australia, February 2007.
69. A.N. Bishop, B. Fidan, B.D.O. Anderson, K. Dogancay, and P.N. Pathirana, "Optimality analysis of sensor-target geometries in passive localization: Part 1 - Bearing-only localization", in *Proc. 3rd Int. Conf. on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP)*, pp. 7-12, Melbourne, VIC, Australia, December 2007.
70. A.N. Bishop, B. Fidan, B.D.O. Anderson, P.N. Pathirana, and K. Dogancay, "Optimality analysis of sensor-target geometries in passive localization: Part 2 - Time-of-arrival based localization", in *Proc. 3rd Int. Conf. on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP)*, pp. 13-18, Melbourne, VIC, Australia, December 2007.
71. I. Shames, B. Fidan, B.D.O. Anderson, and H. Hmam, "Self-localization of mobile agents in the plane," in *Proc. IEEE Int. Symposium on Wireless Pervasive Computing*, pp. 116-120, Santorini, Greece, May 2008.
72. A. Sutton, B. Fidan, and D. van der Walle, "Hierarchical UAV formation control for cooperative surveillance," in *Proc. 17th World Congress of Int. Federation of Automatic Control (IFAC'08)*, pp. 12087-12092, Seoul, Korea, July 2008.
73. D. van der Walle, B. Fidan, A. Sutton, C. Yu and B.D.O. Anderson, "Non-hierarchical UAV formation control for surveillance tasks," in *Proc. American Control Conference*, pp. 777-782, Seattle, WA, USA, June 2008.
74. I. Shames, B. Fidan, and B.D.O. Anderson, "Close target reconnaissance using autonomous UAV formations," in *Proc. 47th IEEE Conference on Decision and Control*, pp. 1729-1734, Cancun, Mexico, December 2008.
75. C. Yu, H. Chee, and B.D.O. Anderson, "Noisy localization on the sphere: a preliminary study", in *Proc. ISSNIP 2008*.

Topic 3: Quality of Formations and Their Control

A. Chapters in Books:

76. B. Fidan, B.D.O. Anderson, C. Yu, and J.M. Hendrickx, "Persistent autonomous formations and cohesive motion control," in *Modeling and Control of Complex Systems*, P. Ioannou and A. Pitsillides (ed.), Taylor & Francis, pp.247-275, 2007.
77. V. Gazi and B. Fidan, "Coordination and control of multi-agent dynamic systems: Models and approaches," in *Swarm Robotics: SAB 2006* (ed. E. Sahin, W.M. Spears, and A.F.T. Winfield), Lecture Notes in Computer Science 4433, Springer-Verlag, pp. 71-102, 2007.

B. Articles/notes/communications in refereed journals:

78. J. Lin, A.S. Morse and B.D.O. Anderson, "The Multi-Agent Rendezvous Problem – Part 1: The Synchronous Case," *SIAM Journal on Control and Optimization*, vol 46, no 6, 2007, pp 2096-2119.
79. J. Lin, A.S. Morse and B.D.O. Anderson, "The Multi-Agent Rendezvous Problem – Part 2: The Asynchronous Case," *SIAM Journal on Control and Optimization*, vol. 46, no. 6, 2007, pp. 2120-2147
80. V. Gazi, B. Fidan, Y.S. Hanay, and M.I. Koksall, "Aggregation, foraging, and formation control of swarms with non-holonomic agents using potential functions and sliding mode techniques," *Elektrik - Tr. J. of Electrical Eng. and Computer Sciences*, vol. 15, no. 2, pp. 149-168, July 2007.
81. B.D.O. Anderson, C. Yu, S. Dasgupta and A.S. Morse, "Control of a three coleaders formation in the plane," *Systems & Control Letters*, Vol 56, pp. 573-578, 2007.
82. M. Cao, A.S. Morse, and B.D.O. Anderson, "Reaching a Consensus in a Dynamically Changing Environment - A Graphical Approach," *SIAM Journal on Control and Optimization*, Vol 47, No. 2, pp. 575-600, February 2008.
83. M. Cao, A.S. Morse, and B.D.O. Anderson, "Reaching a Consensus in a Dynamically Changing Environment - convergence rates, measurement delays and asynchronous events," *SIAM Journal on Control and Optimization*, Vol 47, No. 2, pp. 601-623, February 2008.
84. M. Cao, A.S. Morse, and B.D.O. Anderson, "Agreeing Asynchronously," *IEEE Transactions on Automatic Control*, vol. 53, no. 8, 2008, pp. 1826-1838.
85. C. Yu, B.D.O. Anderson, S. Dasgupta and B. Fidan, "Control of minimally persistent formations in the plane," *SIAM Journal on Control and Optimization*, vol. 48, no. 1, pp. 206-233, February 2009.

C. Refereed conference papers

86. S. Sandeep, B. Fidan, and C. Yu, "Decentralized Cohesive Motion Control of Multi-Agent Formations," in *Proc. 14th Mediterranean Conference on Control and Automation*, pp. FM1.3 (6 pages), June 2006.
87. M. Cao, A.S. Morse, and B.D.O. Anderson, "Reaching a Consensus in the Face of Measurement Delays," in *Proc. 17th International Symposium on Mathematical Theory of Networks and Systems*, pp. 855-858, July 2006.
88. M. Cao, A.S. Morse, and B.D.O. Anderson, "Agreeing Asynchronously: Announcement of Results," in *Proc. 45th IEEE Conference on Decision and Control*, pp. 4301-4306, San Diego, CA, USA, December 2006.

89. M. Cao, A.S. Morse, and B.D.O. Anderson, "Reaching an agreement using delayed information," in *Proc. 45th IEEE Conference on Decision and Control*, pp. 3375-3380, San Diego, CA, USA, December 2006.
90. B. Fidan and B.D.O. Anderson, "Switching control for robust autonomous robot and vehicle platoon formation maintenance", in *Proc. 15th Mediterranean Conference on Control and Automation*, T33-002 (6 pages), Athens, Greece, June 2007.
91. I. Shames, C. Yu, B. Fidan, and B.D.O. Anderson, "Externally excited coordination of autonomous formations", in *Proc. 15th Mediterranean Conference on Control and Automation*, T33-003 (6 pages), Athens, Greece, June 2007.
92. C. Yu, B. Fidan, I. Shames, S. Sandeep, and B.D.O. Anderson, "Collision free coordination of autonomous multi-agent systems," in *Proc. European Control Conference*, pp. 900-907, Kos, Greece, July 2007.
93. V. Gazi, M.I. Koksals, and B. Fidan, "Aggregation in a swarm of non-holonomic agents using artificial potentials and sliding mode control," in *Proc. European Control Conference*, pp. 1485-1491, Kos, Greece, July 2007.
94. M. Cao, A.S. Morse, C. Yu, B.D.O. Anderson and S. Dasgupta, "Controlling a triangular formation of mobile autonomous agents," in *Proc. 46th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 2007.
95. B.D.O. Anderson, S. Dasgupta, C. Yu, "Control of Directed Formations with a Leader-First Follower Structure", in *Proc. 46th IEEE Conference on Decision and Control*, New Orleans, LA, USA, December 2007.
96. M.I. Koksals, V. Gazi, B. Fidan, and R. Ordonez, "Tracking a maneuvering target with a swarm of non-holonomic agents using artificial potentials and sliding mode control," in *Proc. IARP-EURON Workshop on Robotics for Risky Interventions and Environmental Surveillance*, Benicassim, Spain, January 2008.
97. M.I. Koksals, V. Gazi, B. Fidan, and R. Ordonez, "Tracking a maneuvering target with a non-holonomic agent using artificial potentials and sliding mode control," in *Proc. 16th Mediterranean Conference on Control and Automation*, pp. 1174-1179, Corsica, France, June 2008.
98. S. Zhai and B. Fidan, "Single view depth estimation based formation control of robotic swarms: Fundamental design and analysis," in *Proc. 16th Mediterranean Conference on Control and Automation*, pp. 1156-1161, Corsica, France, June 2008.
99. S. Zhai, B. Fidan, S.C. Ozturk, and V. Gazi, "Single view depth estimation based formation control of robotic swarms: Obstacle avoidance, simulation, and practical issues," in *Proc. 16th Mediterranean Conference on Control and Automation*, pp. 1162-1167, Corsica, France, June 2008.
100. M. Cao, C. Yu, A.S. Morse, B.D.O. Anderson, S. Dasgupta, "Generalized Controller for Directed Triangle Formations", in *Proc. 17th World Congress of Int. Federation of Automatic Control (IFAC'08)*, pp. 6590-6595, Seoul, Korea, July 2008.
101. M. Cao, B.D.O. Anderson, A.S. Morse, C. Yu, "Control of Acyclic Formations of Mobile Autonomous Agents," in *Proc. 47th IEEE Conference on Decision and Control*, Cancun, Mexico, December 2008.
102. G. Piovan, I. Shames, B. Fidan, F. Bullo, and B.D.O. Anderson, "On frame and orientation localization for relative sensing networks," in *Proc. 47th IEEE Conference on Decision and Control*, pp. 2326-2331, Cancun, Mexico, December 2008.

103. X. Hou and C. Yu, "On the implementation of a robotic SWARM testbed," in Proc. 4th International Conference on Autonomous Robots and Agents, New Zealand, Feb 2009.
104. A. Scott and C. Yu, "Cooperative multi-agent mapping and exploration in Webots," in Proc. 4th International Conference on Autonomous Robots and Agents, New Zealand, Feb 2009.
105. Summers, T., Yu, C., Anderson, B.D.O., Dasgupta, S., "Control of a leader remote follower formation in the plane," to appear in *Proc. European Control Conference*, Budapest, Hungary, August 2009.
106. I. Shames, S. Dasgupta, B. Fidan, and B.D.O. Anderson, "Circumnavigation using distance measurements," to appear in *Proc. European Control Conference*, Budapest, Hungary, August 2009.
107. R. Soukieh, I. Shames, and B. Fidan, "Obstacle avoidance of non-holonomic unicycle robots based on fluid mechanical modeling," to appear in *Proc. European Control Conference*, Budapest, Hungary, August 2009.
108. R. Soukieh, I. Shames, and B. Fidan, "Obstacle avoidance of robotic formations based on fluid mechanical modeling," to appear in *Proc. European Control Conference*, Budapest, Hungary, August 2009.