Bibliography

[AL15] C. Altafini and G. Lini. Predictable dynamics of opinion forming for networks with antagonistic interactions. *IEEE Trans. Autom. Control*, 60(2):342–357, 2015.

[Bap10] R. B. Bapat. *Graphs and Matrices*. Springer, 2010.

[BAW11] H. Bai, M. Arcak, and J. Wen. *Cooperative Control Design*. Springer, 2011.

[Bul22] F. Bullo. *Lectures on Network Systems*. Kindle Direct Publishing, 2022.

[CAYM15] K. Cai, B. D. O. Anderson, C. Yu, and G. Mao. Local average consensus in distributed measurement of spatial-temporal varying parameters: 1d case. *Automatica*, 52(2):135–145, 2015.

[CI11] K. Cai and H. Ishii. Quantized consensus and averaging on gossip digraphs. *IEEE Trans. Autom. Control*, 56(9):2087–2100, 2011.

[CI12] K. Cai and H. Ishii. Average consensus on general strongly connected digraphs. *Automatica*, 48(11):2750–2761, 2012.

[CLC+16] W. Chen, J. Liu, Y. Chen, S. Z. Khong, D. Wang, T. Basar, L. Qiu, and K. H. Johansson. Characterizing the positive semidefiniteness of signed laplacians via effective resistances. In *Proc. IEEE Conf. on Decision and Control*, pages 985–990, 2016.

[CWL+17] W. Chen, D. Wang, J. Liu, T. Basar, and L. Qiu. On spectral properties of signed laplacians for undirected graphs. In *Proc. IEEE Conf. on Decision and Control*, pages 1999–2002, 2017.

[CWRKG20] J. Chen, H. Wang, M. Rubenstein, and H. Kress-Gazit. Automatic control synthesis for swarm robots from formation and location-based high-level specifications. In *Proc. IEEE/RSJ Int. Conf. on Intelligent Robots and Systems*, pages 8027–8034, 2020.

[CYRC13] Y. Cao, W. Yu, W. Ren, and G. Chen. An overview of recent progress in the study of distributed multi-agent coordination. *IEEE Trans Industrial informatics*, 9(1):427–438, 2013.

[DB10] F. Dorfler and F. Bullo. Synchronization and transient stability in power networks and non-uniform kuramoto oscillators. *SIAM J. Control and Optimization*, 50(3):1616–1642, 2010.

[DB14] F. Dorfler and F. Bullo. Synchronization in complex networks of phase oscillators: A survey. *Automatica*, 50(6):1539–1564, 2014.

[DCB13] F. Dorfler, M. Chertkov, and F. Bullo. Synchronization in complex oscillator networks and smart grids. *Proc. National Academy of Sciences*, 110(6):2005–2010, 2013.

[FJB16] N. E. Friedkin, P. Jia, and F. Bullo. A theory of the evolution of social power: Natural trajectories of interpersonal influence systems along issue sequences. *Sociological Science*, 3:444–472, 2016.

[FM16] B. A. Francis and M. Maggiore. *Flocking and Rendezvous in Distributed Robotics*. Springer, 2016.

[GR00] C. Godsil and G. Royle. *Algebraic Graph Theory*. Springer, 2000.

[GS10] F. Garin and L. Schenato. A survey on distributed estimation and control applications using linear consensus algorithms. In A. Bemporad, M. Heemels, and M. Johansson, editors, *Networked Control Systems, Lecture Notes in Control and Information Sciences, Springer*, pages 75–107, 2010.

[HLZ+17] T. Han, Z. Lin, R. Zheng, Z. Han, and H. Zhang. A barycentric coordinate based approach to three-dimensional distributed localization for wireless sensor networks. In *Proc. IEEE Int. Conf. on Control & Automation*, pages 600–605, 2017.

[INK19] T. Ikeda, M. Nagahara, and K. Kashima. Maximum hands-off distributed control for consensus of multiagent systems with sampled-data state observation. *IEEE Trans. Control of Network Systems*, 6(2):852–862, 2019.

[JLM03] A. Jadbabaie, J. Lin, and A. S. Morse. Coordination of groups of mobile autonomous agents sing nearest neighbor rules. *IEEE Trans. Autom. Control*, 48(6):988–1001, 2003.

[KBG14] A. Khanafer, T. Basar, and B. Gharesifard. Stability properties of infection diffusion dynamics over directed networks. In *Proc. IEEE Conf. on Decision and Control*, pages 6215–6220, 2014.

[KCK20] S. Kawamura, K. Cai, and M. Kishida. Distributed output regulation of heterogeneous uncertain linear agents. *Automatica*, 119:109094, 2020.

[LDY+13] Z. Lin, W. Ding, G. Yan, C. Yu, and A. Giua. Leader-follower formation via complex laplacian. *Automatica*, 49:1900–1906, 2013.

[LFD15] Z. Lin, M. Fu, and Y. Diao. Distributed self localization for relative position sensing networks in 2d space. *IEEE Trans. Sig. Proc.*, 63(14):3751–3761, 2015.

[LHZF16] Z. Lin, T. Han, R. Zheng, and M. Fu. Distributed localization for 2-d sensor networks with bearing-only measurements under switching topologies. *IEEE Trans. Sig. Proc.*, 64(23):6345–6359, 2016.

[Lun12] J. Lunze. Synchronization of heterogeneous agents. *IEEE Trans. Autom. Control*, 57(11):2885–2890, 2012.

[LWC+16] Z. Lin, L. Wang, Z. Chen, M. Fu, and Z. Han. Necessary and sufficient graphical conditions for affine formation control. *IEEE Trans. Autom. Control*, 61(10):2877–2891, 2016.

[LWHF14] Z. Lin, L. Wang, Z. Han, and M. Fu. Distributed formation control of multi-agent systems using complex laplacian. *IEEE Trans. Autom. Control*, 59(7):1765–1777, 2014.

[LWHF16] Z. Lin, L. Wang, Z. Han, and M. Fu. A graph laplacian approach to coordinate-free formation stabilization for directed networks. *IEEE Trans. Autom. Control*, 61(5):1269–1280, 2016.

[MC19] T. Motoyama and K. Cai. Top-down synthesis of multi-agent formation control: an eigenstructure assignment based approach. *IEEE Trans. Control of Network Systems*, 6(4):1404–1414, 2019.

[ME10] M. Mesbahi and M. Egerstedt. *Graph Theoretic Methods in Multiagent Networks*. Princeton University Press, 2010.

[OGNK13] K. Oles, E. Gudowska-Nowak, and A. Kleczkowski. Efficient control of epidemics spreading on networks: Balance between treatment and recovery. *PLoS ONE*, 8(6):e63813, 2013.

[OPA15] K. K. Oh, M. C. Park, and H. S. Ahn. A survey of multi-agent formation control. *Automatica*, 53:424–440, 2015.

[OS06] R. Olfati-Saber. Flocking for multi-agent dynamic systems: Algorithms and theory. *IEEE Trans. Autom. Control*, 51(3):401–420, 2006.

[OS07] R. Olfati-Saber. Distributed Kalman filtering for sensor networks. In *Proc. IEEE Conf. on Decision and Control*, pages 5492–5498, 2007.

[OSFM07] R. Olfati-Saber, J. A. Fax, and R. M. Murray. Consensus and cooperation in networked multi-agent systems. *Proc. IEEE*, 95(1):215–233, 2007.

[PR11] A. Pikovsky and M. Rosenblum. Dynamics of heterogeneous oscillator ensembles in terms of collective variables. *Physica D: Nonlinear Phenomena*, 240(9):872–881, 2011.

[RB08] W. Ren and R. W. Beard. *Distributed Consensus in Multi-vehicle Cooperative Control*. Springer, 2008.

[Ren08] W. Ren. Synchronization of coupled harmonic oscillators with local interaction. *Automatica*, 44(12):3195–3200, 2008.

[SS08] L. Scardovi and R. Sepulchre. Synchronization in networks of identical linear systems. *Automatica*, 45(11):2557–2562, 2008.

[SVC+16] M. Saska, V. Vonasek, J. Chudoba, J. Thomas, G. Loianno, and V. Kumar. Swarm distribution and deployment for cooperative surveillance by micro-aerial vehicles. *J. Intelligent & Robotic Systems*, 84:469–492, 2016.

[WSA11] P. Wieland, R. Sepulchre, and F. Allgower. An internal model principle is necessary and sufficient for linear output synchronization. *Automatica*, 47(5):1068–1074, 2011.

[XHC+17] Y. Xu, T. Han, K. Cai, Z. Lin, G. Yan, and M. Fu. A distributed algorithm for resource allocation over dynamic digraphs. *IEEE Trans. Sig. Proc.*, 65(10):2600–2612, 2017.

[YLA+18] M. Ye, J. Liu, B. D. O. Anderson, C. Yu, and T. Basar. Evolution of social power in social networks with dynamic topology. *IEEE Trans. Autom. Control*, 63(11):3793–3808, 2018.

[YLAC21] M. Ye, J. Liu, B. D. O. Anderson, and M. Cao. Applications of the Poincare-Hopf theorem: Epidemic models and Lotka-Volterra systems. *IEEE Trans. Autom. Control*, 67(4):1609–1624, 2021.

[Zha18] S. Zhao. Affine formation maneuver control of multiagent systems. *IEEE Trans. Autom. Control*, 63(12):4140–4155, 2018.

[ZYC20] J. Zhang, K. You, and K. Cai. Distributed conjugate gradient tracking for resource allocation in unbalanced networks. *IEEE Trans. Sig. Proc.*, 68:2186–2198, 2020.

Index