Selected Publications

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Directions:

- Multiagent systems: [1, 2, 3, 4]
- Games and Inverse Games (Incentive design): [5, 6, 7]
- Nonlinear control, formation control, robot attitude control: [1, 3, 4, 8, 9]
- Distributed optimization and large-scale systems: [2, 8]

References

[1] S. Zhang, W. Song, F. He, Y. Hong, and X. Hu, "Intrinsic tetrahedron formation of reduced attitude," *Automatica*, vol. 87, pp. 375–382, 2019.

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  author = {Zhang, S. and Song, W. and He, F. and Hong, Y. and Hu, X.},
  title = {Intrinsic tetrahedron formation of reduced attitude},
  journal = {Automatica},
  year = {2019},
  volume = {87},
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  publisher = {Elsevier},
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[2] S. Zhang, A. Ringh, X. Hu, and J. Karlsson, "Modeling collective behaviors: A moment-based approach," *IEEE Transactions on Automatic Control*, vol. 66, no. 1, pp. 33–48, 2021.

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  title = {Modeling Collective Behaviors: A Moment-Based Approach},
  journal = {IEEE Transactions on Automatic Control},
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  pages = {33-48},
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[3] S. Zhang, F. He, Y. Hong, and X. Hu, "An intrinsic approach to formation control of regular polyhedra for reduced attitudes," *Automatica*, vol. 111, p. 108619, 2020.

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[5] G. Vasileiou, L. Zhang, and S. Zhang, "Adaptive incentive design with regret minimization," *In Proceedings of the European Control Conference (ECC), Reykjavik, Iceland*, pp. 3130–3136, 2026.

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  title = {Adaptive Incentive Design with Regret Minimization},
  journal = {In Proceedings of the European Control Conference (ECC), Reykjavik, Iceland},
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[6] G. Vasileiou, L. Zhang, and S. Zhang, "Incentive Design without Hypergradients: A Social-Gradient Method," *The 2026 IEEE Conference on Decision and Control (CDC), Honolulu, USA*, 2026.

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  title = {Finite-time attitude synchronization with distributed discontinuous protocols},
  journal = {IEEE Transactions on Automatic Control},
  year = {2020},
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  pages = {3608--3615},
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