

REFERENCES

- [1] Jacob Abernethy, Peter L Bartlett, Rafael Frongillo, and Andre Wibisono. 2013. How to hedge an option against an adversary: Black-scholes pricing is minimax optimal. In *Advances in Neural Information Processing Systems*. 2346–2354.
- [2] Jacob Abernethy, Rafael M Frongillo, and Andre Wibisono. 2012. Minimax option pricing meets Black-Scholes in the limit. In *Proceedings of the forty-fourth annual ACM symposium on Theory of computing*. ACM, 1029–1040.
- [3] Daron Acemoglu and Asuman Ozdaglar. 2011. Opinion dynamics and learning in social networks. *Dynamic Games and Applications* 1, 1 (2011), 3–49.
- [4] Itai Arieli and Manuel Mueller-Frank. 2015. Multi-Dimensional Social Learning. (2015).
- [5] Elie Ayache, Philippe Henrotte, Sonia Nassar, and Xuewen Wang. 2004. Can anyone solve the smile problem? *The Best of Wilmott* (2004), 229.
- [6] Hans Buehler. 2006. Expensive martingales. *Quantitative Finance* 6, 3 (2006), 207–218.
- [7] Peter Carr and Dilip B Madan. 2005. A note on sufficient conditions for no arbitrage. *Finance Research Letters* 2, 3 (2005), 125–130.
- [8] Neil Chriss. 1996. *Black Scholes and beyond: option pricing models*. McGraw-Hill.
- [9] Laurent Cousot. 2007. Conditions on option prices for absence of arbitrage and exact calibration. *Journal of Banking & Finance* 31, 11 (2007), 3377–3397.
- [10] Sanmay Das. 2008. The effects of market-making on price dynamics. In *Proceedings of the 7th international joint conference on Autonomous agents and multiagent systems-Volume 2*. International Foundation for Autonomous Agents and Multiagent Systems, 887–894.
- [11] Guillaume Deffuant, David Neau, Frederic Amblard, and Gérard Weisbuch. 2000. Mixing beliefs among interacting agents. *Advances in Complex Systems* 3, 01n04 (2000), 87–98.
- [12] Morris H DeGroot. 1974. Reaching a consensus. *J. Amer. Statist. Assoc.* 69, 345 (1974), 118–121.
- [13] Peter DeMarzo, Ilan Kremer, and Yishay Mansour. 2006. Online trading algorithms and robust option pricing. In *Proceedings of the thirty-eighth annual ACM symposium on Theory of computing*. ACM, 477–486.
- [14] Emanuel Derman and Michael B Miller. 2016. *The Volatility Smile*. John Wiley & Sons.
- [15] Moritz Duembgen and LCG Rogers. 2014. Estimate nothing. *Quantitative Finance* 14, 12 (2014), 2065–2072.
- [16] Benjamin Golub and Evan D Sadler. 2017. Learning in social networks. (2017).
- [17] Roger A. Horn and Charles R. Johnson. 2012. *Matrix Analysis* (2nd ed.). Cambridge University Press, New York, NY, USA.
- [18] Brian Hrolenok, Byron Boots, and Tucker Hybinette Balch. 2017. Sampling Beats Fixed Estimate Predictors for Cloning Stochastic Behavior in Multiagent Systems. In *AAAI 2022–2028*.
- [19] Michael Kamal and Jim Gatheral. 2010. Implied volatility surface. *Encyclopedia of Quantitative Finance* (2010).
- [20] Ulrich Krause. 2015. Positive dynamical systems in discrete time: theory, models, and applications. (2015).
- [21] Jean Paul Laurent, D Leisen, et al. [n. d.]. Building a consistent pricing model from observed option prices. In *Quantitative Analysis in Financial Markets: Collected Papers of the New York University Mathematical Finance Seminar*, Vol. 2. 216–238.
- [22] Zhuoshu Li and Sanmay Das. 2016. An Agent-Based Model of Competition Between Financial Exchanges: Can Frequent Call Mechanisms Drive Trade Away from CDAs?. In *Proceedings of the 2016 International Conference on Autonomous Agents & Multiagent Systems*. International Foundation for Autonomous Agents and Multiagent Systems, 50–58.
- [23] Jan Lorenz. 2005. A stabilization theorem for dynamics of continuous opinions. *Physica A: Statistical Mechanics and its Applications* 355, 1 (2005), 217–223.
- [24] Tung Mai, Ioannis Panageas, and Vijay V. Vazirani. 2017. Opinion Dynamics in Networks: Convergence, Stability and Lack of Explosion. *44th International Colloquium on Automata, Languages, and Programming (ICALP)* (2017).
- [25] Luc Moreau. 2005. Stability of multiagent systems with time-dependent communication links. *IEEE Transactions on automatic control* 50, 2 (2005), 169–182.
- [26] Elchanan Mossel and Omer Tamuz. 2017. Opinion Exchange Dynamics. *Probability Surveys* (2017).
- [27] Michael Roper. 2010. Arbitrage free implied volatility surfaces. *preprint* (2010).
- [28] Ernesto Salinelli and Franco Tomarelli. 2014. *Discrete dynamical systems: one-step scalar equations*. Springer International Publishing, Cham, 85–124.
- [29] Martin Schweizer and Johannes Wissel. 2008. Arbitrage-free market models for option prices: The multi-strike case. *Finance and Stochastics* 12, 4 (2008), 469–505.
- [30] U.S. Securities and Exchange Commission. 2017. U.S. ETP Cancel to Trade Ratio. (2017). <https://www.sec.gov/marketstructure/datavis.html#WgvqJ2iCyUk> [Online; accessed 14-November-2017].
- [31] Shahin Shahrampour, Sasha Rakhlin, and Ali Jadbabaie. 2013. Online Learning of Dynamic Parameters in Social Networks. In *Advances in Neural Information Processing Systems* 26, C. J. C. Burges, L. Bottou, M. Welling, Z. Ghahramani, and K. Q. Weinberger (Eds.), Curran Associates, Inc., 2013–2021. <http://papers.nips.cc/paper/4976-online-learning-of-dynamic-parameters-in-social-networks.pdf>
- [32] Lones Smith and Peter Sørensen. 2000. Pathological outcomes of observational learning. *Econometrica* 68, 2 (2000), 371–398.
- [33] Alan Tsang and Kate Larson. 2014. Opinion dynamics of skeptical agents. In *Proceedings of the 2014 international conference on Autonomous agents and multi-agent systems*. International Foundation for Autonomous Agents and Multiagent Systems, 277–284.
- [34] Xintong Wang and Michael P Wellman. 2017. Spoofing the limit order book: An agent-based model. In *Proceedings of the 16th Conference on Autonomous Agents and MultiAgent Systems*. International Foundation for Autonomous Agents and Multiagent Systems, 651–659.