

# Dummy Title

By Dummies  
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## Abstract

On 24 April, 2020, a researcher at MIT released a working paper finding that "The Subways Seeded the Massive Coronavirus Epidemic in New York City". While the analysis in the paper has been called into question, it remains true that the role of public transportation in the spread of COVID-19 is still unknown. In this paper, we introduce an agent-based model of the New York City subway and analyze how well it can predict the spread of COVID-19 through the boroughs of New York City.

Our findings that [insert findings here] should interest public health officials looking to make policy decisions about public transportation.

[Writer's note: Of course, this is the ideal final result. We will focus on the early infection period and I give it a 50/50 that we even get to taking into account countermeasures and ridership losses. We will make a preliminary model, improve it, and see how far we can get.]

## Background

blah blah blah covid-19. cite something found from wikipedia.

blah blah blah network science, subways are networks. nodes and edges node weights edge weights as we decide to use them. blah blah blah

## Methodology

## Results

## Conclusion

## References

- [1] Mta station data. <http://web.mta.info/developers/data/nyct/subway/Stations.csv>.
- [2] Mta turnstile data. <http://web.mta.info/developers/turnstile.html>.
- [3] Albert-László Barabási and Márton Pósfai. *Network science*. Cambridge University Press, 2017.

- [4] Philip Cooley, Shawn Brown, James Cajka, Bernadette Chasteen, Laxminarayana Ganapathi, John Grefenstette, Craig R. Hollingsworth, Bruce Y. Lee, Burton Levine, William D. Wheaton, and et al. The role of subway travel in an influenza epidemic: A new york city simulation. *Journal of Urban Health*, 88(5):982–995, Sep 2011.
- [5] Jeffrey E. Harris. The subways seeded the massive coronavirus epidemic in new york city. [http://web.mit.edu/jeffrey/harris/HarrisJE\\_WP2\\_COVID19\\_NYC\\_24-Apr-2020.pdf](http://web.mit.edu/jeffrey/harris/HarrisJE_WP2_COVID19_NYC_24-Apr-2020.pdf).
- [6] M. Laskowski, B. C. P. Demianyk, J. Witt, S. N. Mukhi, M. R. Friesen, and R. D. Mcleod. Agent-based modeling of the spread of influenza-like illness in an emergency department: A simulation study. *IEEE Transactions on Information Technology in Biomedicine*, 15(6):877–889, 2011.