

Abstract Submitted  
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**Road Usage Heterogeneity and Mitigation of Traffic Congestion** MARTA C. GOMZALEZ, PU WANG, MIT — Road networks form the backbone of the social and economic life of a city. Until recently, however, data have not been available to study the impact of trip selection on traffic congestion at an urban scale. To that end, we combined the most complete record of daily trips with the detailed road GIS data to analyze the road usage patterns in two US metropolitan areas. We classify the importance of road segments based on their ability to attract drivers from diverse sources and find that most of them are mainly used by drivers from very few sources. Thanks to this heterogeneity, we find that it is possible to design an efficient strategy to largely reduce the travel time in the road system.

Marta Gonzalez  
MIT

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