

GEORGE Temperospatial Traffic Volume Prediction Model Based on Sparse GPS Samples Jack Snowdon¹ Trevor McGough² Olga Gkountouna² Andreas Züfle²

- analysis
- Previous traffic research has focused on traffic speed
- based on TomTom-reported traffic flow
- Virginia Department of Transportation (VDOT)
 - cars at a point on the road network
 - detectors that measure traffic flow and speed
 - reports
- TomTom
 - specified coordinate location grids
 - TomTom-supported device



¹Massachussets Institute of Technology ²Department of Geography and GeoInformation Science, George Mason University









Results

Overall, 69.7% of confidence intervals captured the true traffic volume • The robust hourly-based prediction consistently proved more accurate than five minute interval approach



Conclusion and Future Work

• Traffic volume prediction has implications in targeted marketing, more comprehensive traffic prediction models, and infrastructure analysis • Spatial interpolation model has been developed to predict coverage at any location on the road network, given direction and TomTom traffic flow • More data is needed from traffic loop detectors



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