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Understanding traffic distribution pattern from the perspective of urban land use

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With the rapid development of urbanization, many problems become more serious in big cities, such as traffic congestion. Different urban land use type can have different influence on traffic, therefore, the analysis of relationship between urban traffic and urban land use is important for better understanding of urban traffic status. This study firstly utilizes spatial data analysis method and time series analysis method to obtain urban traffic pattern from the spatial and temporal perspective, using one-week traffic sensor data, we measure the urban commuting patterns, which include weekday mode and weekend mode. Secondly, this study analyzes the relationship between traffic status and land use type in traffic analysis zone (TAZ) level, which indicates traffic status has spatial autocorrelation, besides, commercial land use and mixed land use type may result in more serious traffic congestion. The research can be of value for urban understanding and decision making in areas of urban management, urban plan and traffic control.