# 无信号交叉口行人过街决策行为分析

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# Decision-Making Behavior of Pedestrians at Intersection without Traffic Lights

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摘要 通过分析拟合广西梧州市中心城区无信号交叉口的实测数据, 研究了行人的过街决策行为和过街速度, 并在此基础上, 引入了行人决策距离和临界安全距离两个概念. 实测数据表明, 交通平常期行人过街速度在平均速度附近变化: 如果考虑行人在路边的等待时间, 行人的平均过街速度为0.6 m/s; 如果不考虑行人在路边的等待时间,行人的平均过街速度为0.8 m/s. 经统计学D'Agostino法检验发现, 交通平常期行人过街的平均速度分布不满足正态分布.

关键词: 交通流　行人流　决策行为　过街速度

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Abstract： This paper conducts a set of field measurements to obtain data of decision-making behavior and crossing speed of pedestrians at an intersection without traffic lights in downtown Wuzhou, Guangxi. The concepts of decision-making distance and critical safety distance are introduced through analysis and fitting of statistical data. The observed data show that pedestrians' crossing speed at off-peak hour fluctuates around the mean speed and does not perfectly obey the normal distribution based on the D'Agostino test. The mean speed at off-peak hour is only 0.6 m/s when the waiting time is counted, whereas it is 0.8 m/s without considering the waiting time.

Keywords： traffic flow, pedestrian flow, decision-making behavior, crossing speed

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