

Investigating the relationship between run-off-the-road crash frequency and traffic flow through different functional forms.

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Crash prediction models play a major role in highway safety analysis. These models can be used for various purposes, such as predicting the number of road crashes or establishing relationships between these crashes and different covariates. However, the appropriate choice for the functional form of these models is generally not discussed in research literature on road safety. In case of run-off-the-road crashes, empirical evidence and logical considerations lead to conclusion that the relationship between expected frequency and traffic flow is not monotonously increasing.

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