

# **Are car drivers holding a motorcycle licence less responsible for motorcycle— Car crash occurrence?: A non-parametric approach**

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## **Abstract**

The purpose of this work was to evaluate the effect of a specific motorcycle license, held by car drivers, in responsibility for motorcycle–car crashes. The data were provided by a multicentric case–control study (MAIDS) regarding the risk of crash and serious injuries of motorcyclists. A non-parametric method, classification and regression tree (CART), was used to accomplish the objective, and then compared to standard unconditional logistic regression.

Drivers owning a motorcycle license turned out to be less responsible for motorcycle–car crashes than drivers who do not have one; both types of analysis are consistent with this result. It is reasonable to assume that car drivers who hold a motorcycle license have acquired more ability in riding and controlling two wheeled vehicles than drivers without a license, and this may help them in predicting motorcycles maneuvers.