

The Dynamics of Motorcycle Crashes: A Global Survey of 1578 Motorcyclists

Abstract

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An online survey was carried out in 2019 which focused on motorcyclists who had been involved in a crash. The survey was disseminated throughout Europe, the USA, Asia, Australia and South America in order to get as much of a global response as possible.

The study extends and expands a pilot study based on a survey of motorcyclists whose motorcycles were fitted with the technology of Advanced (anti-lock) Braking Systems (ABS), which was carried out in 2016/2017. This research involved in the analysis of the study are most importantly riders bringing their personal experience and their expertise above that of simple academia.

A sample of 1,578 motorcycle riders from 30 different countries answered a questionnaire which included 39 questions on much more than the typical parameters of crashes. Particular focus was put on questions most relevant to motorcycles like the use of protective equipment and assistance systems, in particular ABS. Many interviewees provided comments throughout the questionnaire and n.832 provided further descriptions of their crashes, which allows deep insight to the dynamics of crashes and their circumstances, which would not be captured in a usual survey.

The survey's overall results highlight the relationship between speed, protective equipment, assistance systems and injuries, as well as how post-crash motions change the patterns of crash occurrence and injury outcome.