

## Vehicle Risk Evaluation in Low Speed Accidents: Consequences for Relevant Test Scenarios

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**Abstract :** Projects of accident research analysis are mostly focused on accidents involving personal damage. Property damage only has a high frequency of occurrence combined with high economic impact. This paper describes main influencing parameters for the extent of damage and presents a repair cost model. For a prospective evaluation method of the monetary effect of advanced driver assistance systems (ADAS), it is necessary to be aware of and quantify all influencing parameters. Furthermore, this method allows the evaluation of vehicle concepts in combination with an ADAS at an early point in time of the product development process. In combination with a property damage database and the introduced repair cost model relevant test scenarios for specific vehicle configurations and their individual property damage risk may be determined. Currently, equipment rates of ADAS are low and a purchase incentive for customers would be beneficial. The next ADAS generation will prevent property damage to a large extent or at least reduce damage severity. Both effects may be a purchasing incentive for the customer and furthermore contribute to increased traffic safety.

**Keywords :** accident research, accident scenarios, ADAS, effectiveness, property damage analysis

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