

Title (en)

METHOD AND CONTROLLER FOR DETECTING CRITICAL DRIVING SITUATIONS OF A TWO-WHEELED MOTOR VEHICLE

Title (de)

VERFAHREN UND STEUERGERÄT ZUM ERKENNEN VON KRITISCHEN FAHRSITUATIONEN EINES KRAFTZWEIRADS

Title (fr)

PROCÉDÉ ET APPAREIL DE COMMANDE PERMETTANT DE DÉTECTER DES SITUATIONS DE CONDUITE CRITIQUES D'UN VÉHICULE AUTOMOBILE À DEUX ROUES

Publication

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Application

**EP 17781081 A 20171005**

Priority

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Abstract (en)

[origin: WO2018095634A1] The invention relates to a method and a controller (3) for detecting critical driving situations of a two-wheeled motor vehicle (1). The method has the following steps: ascertaining a current slip angle ( $\alpha_1$ ) and a current differential slip angle ( $d\alpha_1$ ) of the front wheel (7) and/or the rear wheel (9); ascertaining a current roll angle ( $\Phi$ ); comparing the ascertained slip angle and the differential slip angle ( $\alpha_1$ ,  $\alpha_2$ ,  $d\alpha_1$ ,  $d\alpha_2$ ) with respective corresponding specified values ( $\alpha_1$ , max,  $\alpha_2$ , max,  $d\alpha_1$ , max,  $d\alpha_2$ , max) of a maximally permissible slip angle or maximally permissible differential slip angle; comparing the current roll angle ( $\Phi$ ) with a specified value ( $\Phi_{\max}$ ) of a maximally permissible roll angle; and generating a criticality signal if at least one of the current slip angles ( $\alpha_1$ ,  $\alpha_2$ ) is greater than the corresponding specified value ( $\alpha_1$ , max,  $\alpha_2$ , max) of the maximally permissible slip angle, at least one of the current differential slip angles ( $d\alpha_1$ ,  $d\alpha_2$ ) is greater than the corresponding specified value ( $d\alpha_1$ , max,  $d\alpha_2$ , max) of the maximally permissible differential slip angle, and the current roll angle ( $\Phi$ ) is greater than the specified value ( $\Phi_{\max}$ ) of the maximally permissible roll angle. Critical driving situations can be reliably detected by means of the method, and if necessary measures for stabilizing the two-wheeled motor vehicle or other safety-increasing measures are taken. Special driving situations can also be taken into consideration in a suitable manner, such as when driving over low- $\mu$  patches or when braking while driving around a curve.

IPC 8 full level

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Citation (search report)

See references of WO 2018095634A1

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