

The instantaneous screw axis of two-wheeled vehicles in typical manoeuvres

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The motion of the rear frame of a two-wheeled vehicle is characterized by the motion of the instantaneous screw axis, which is also known as the Mozzi axis. The first objective of this study is to analyse the evolution of the instantaneous screw axis during typical manoeuvres. The second objective is to highlight that the analysis of the motion of the instantaneous screw axis gives useful information about the manoeuvre and the riding technique. Entering in a curve and lane change manoeuvres are considered, both experimental and numerical results are analysed.

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