leading to a simple parametric model. Thus, the real kinematics of the wheelchair with regard to the orientation of caster wheels could be computed, in order to perfectly control its motion.

In future works, we will focus on the design of a control law that assists the user during maneuvers and abrupt direction changes. In addition, we envisage to implement this model in a virtual reality powered wheelchair driving simulator [17], which takes into account the effects of the caster wheels.

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