

CAR+TRAILERS' SYSTEMS ARE LOCALLY NILPOTENTIZABLE (A TRIESTE 2000 CONFERENCE
REVISITED)

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A car towing a number of passive idealized trailers is a classical kinematical model visualising so-called Goursat distributions. In the description of that series of models (indexed by the number of trailers) there are used trigonometric functions of angles between neighbouring trailers and between the car and its closest trailer. This heavily obscures the algebraic side of the models: the generated control Lie algebra is clearly not nilpotent and infinite-dimensional. Hector Sussmann asked in 1998 if the car+trailers' kinematical systems were nilpotentizable. We presented a positive answer to that question at a Trieste 2000 conference. However, recent scientific meetings show that that our result is not quite known... The aim of the talk is to make better known that result and to sketch our [old] proof of it.

REFERENCES

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