

Propositions

Pertaining to the dissertation:

Macroscopic Characteristics of Bicycle Traffic Flow
A bird's-eye view of cycling

Maria Jentina Wierbos

September 15, 2021

1. To better estimate the traffic state, one should prioritize understanding and describing general patterns over increasing the resolution of the input. *This proposition pertains to this dissertation*
2. Cyclists adapt their speed based on the perceived crowdedness rather than the observed density. *This proposition pertains to this dissertation.*
3. Measures to increase the jam density at intersections are only successful when cyclists are made aware of the underlying scientific reasoning. *This proposition pertains to this dissertation.*
4. Providing traffic state information to cyclists will solve the problem of bicycle congestion.
5. Using multiple commuting options leads to the best research hypotheses on traffic flow.
6. Similar to weather simulations, general traffic flow models can be used worldwide on a coarse resolution, but require adaptation to local conditions when zooming in on country level.
7. Extreme situations like the Covid-19 pandemic are the best case for testing a behavioral theory.
8. A PhD progresses best when it is not considered the sole priority in life.
9. Successful scientists are writing talents.
10. The confidence level of a fresh doctor can be judged on the font size of his/her dissertation.

These propositions are considered opposable and defensible and have been approved as such by the promoters Dr. V.L. Knoop and Prof. dr. ir. S.P. Hoogendoorn.