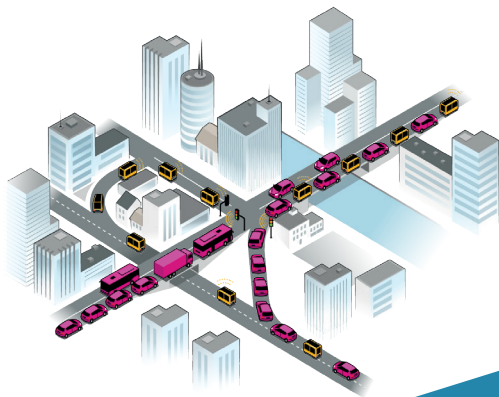




# COeXISTENCE

Playing urban mobility games with intelligent machines  
Framework to discover and mitigate human-machine conflicts



## ••• CONFLICT •••

Intelligent machines in urban mobility games will learn to win at the cost of humans.

## ••• CONTEXT •••

AI-driven technologies are ready to enter urban mobility. They promise relief to the notoriously congested transport systems in pursuing sustainability goals.

## ••• PROBLEM •••

Since AI already outperforms humans in the most complex games (chess and Go), it is likely to win the urban mobility games as well. Tempting us and policymakers to gradually hand over our decisions to intelligent machines.

## ••• OBJECTIVE •••

Experimentally discover the existence machine-dominated urban mobility system, where (collective) decisions of machine intelligence improve system-wide performance, yet at the cost of humans, now facing e.g. longer travel times costs or being nudged to change natural travel habits into the optimal ones - desired by the machine-centred system.

## ••• METHOD •••



### A: SIMULATE

agent-based urban mobility simulation



### B: DISCOVER

broad and deep expedition searching for conflicts



### C: ASSESS

where conflicts are quantified from various perspectives



### D: MITIGATE

machines become responsible and mitigate conflicts

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