



IDALAB

EFFICIENT DATA ANALYTICS SOLUTIONS



PARIS
LODRON
UNIVERSITÄT
SALZBURG



FOR AIRPLANE

Nonstationarity and safety

• Optics was distorted with a detuning of the quads by up to 20% within

- State was extended to incorporate the time step $s \rightarrow (s, t)$

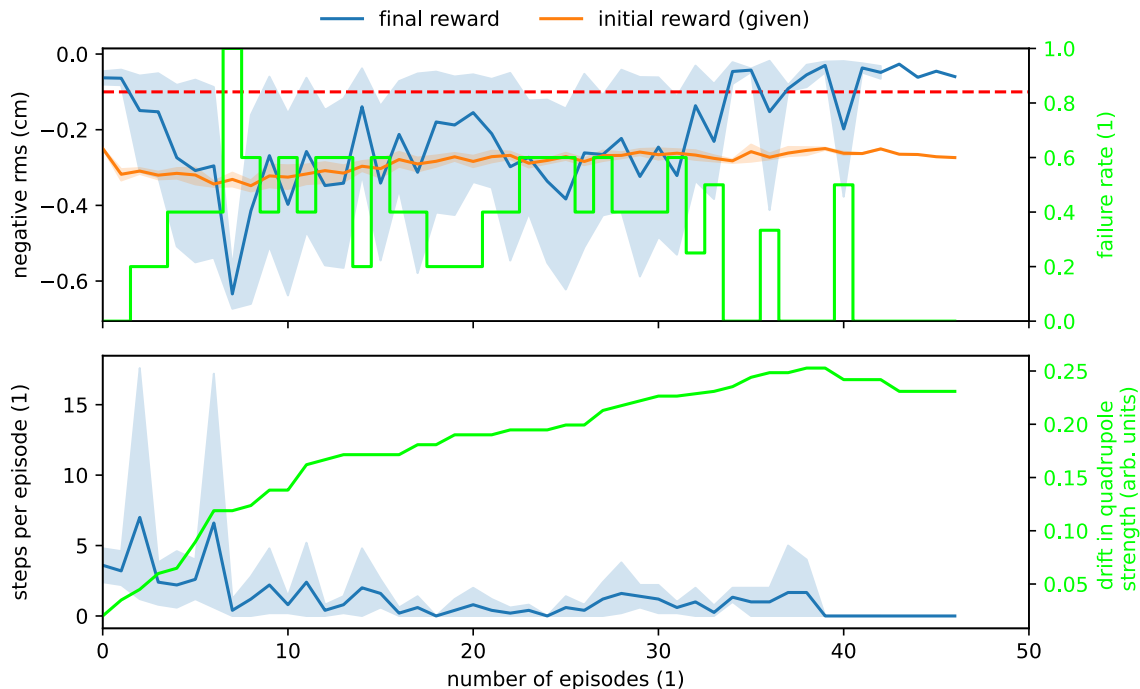
• Mereweightment in points

• safety also considered



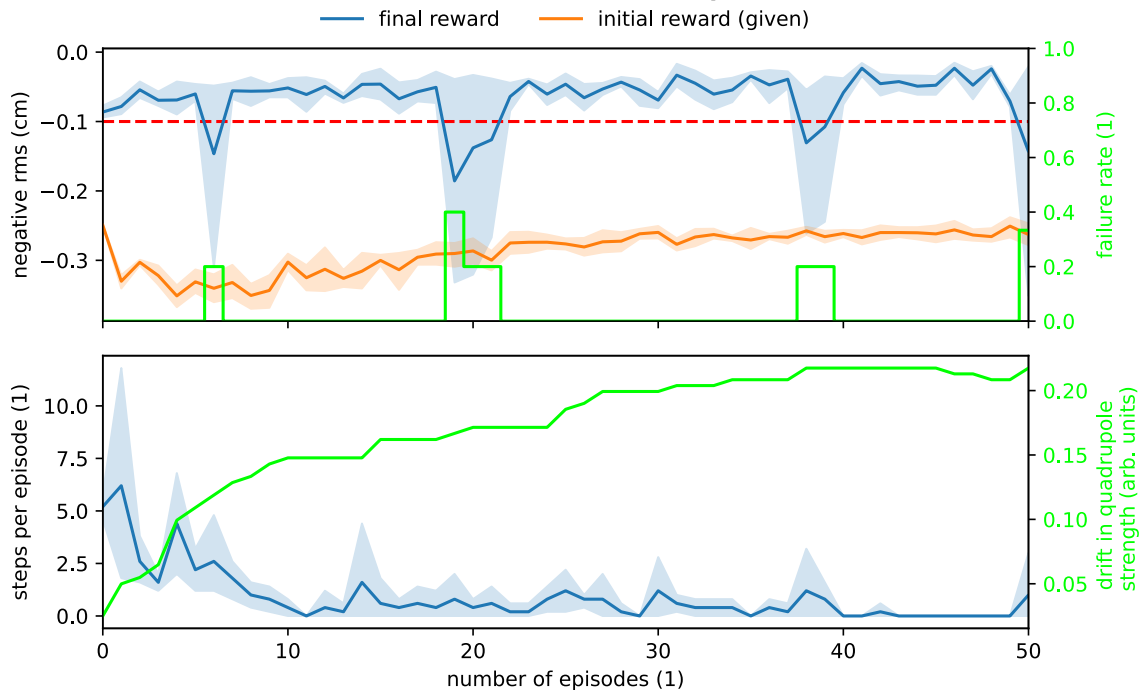
No safety - no time information

no success in control



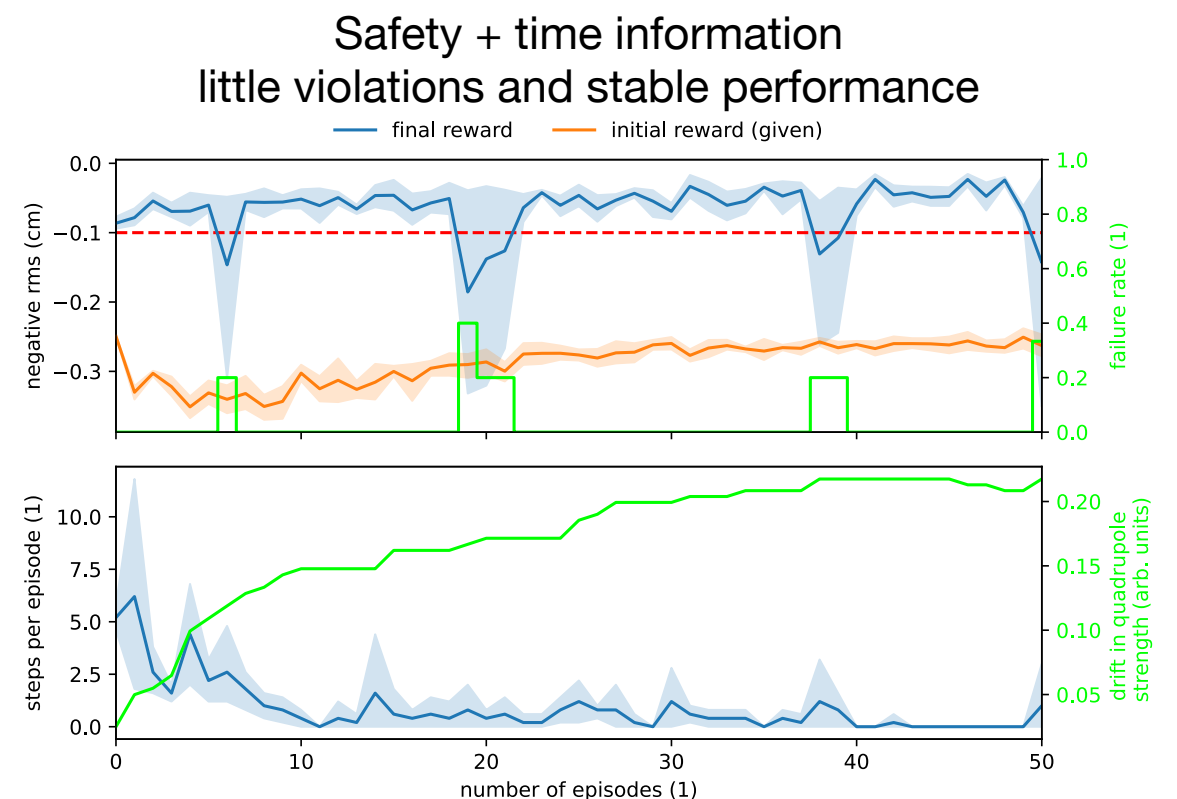
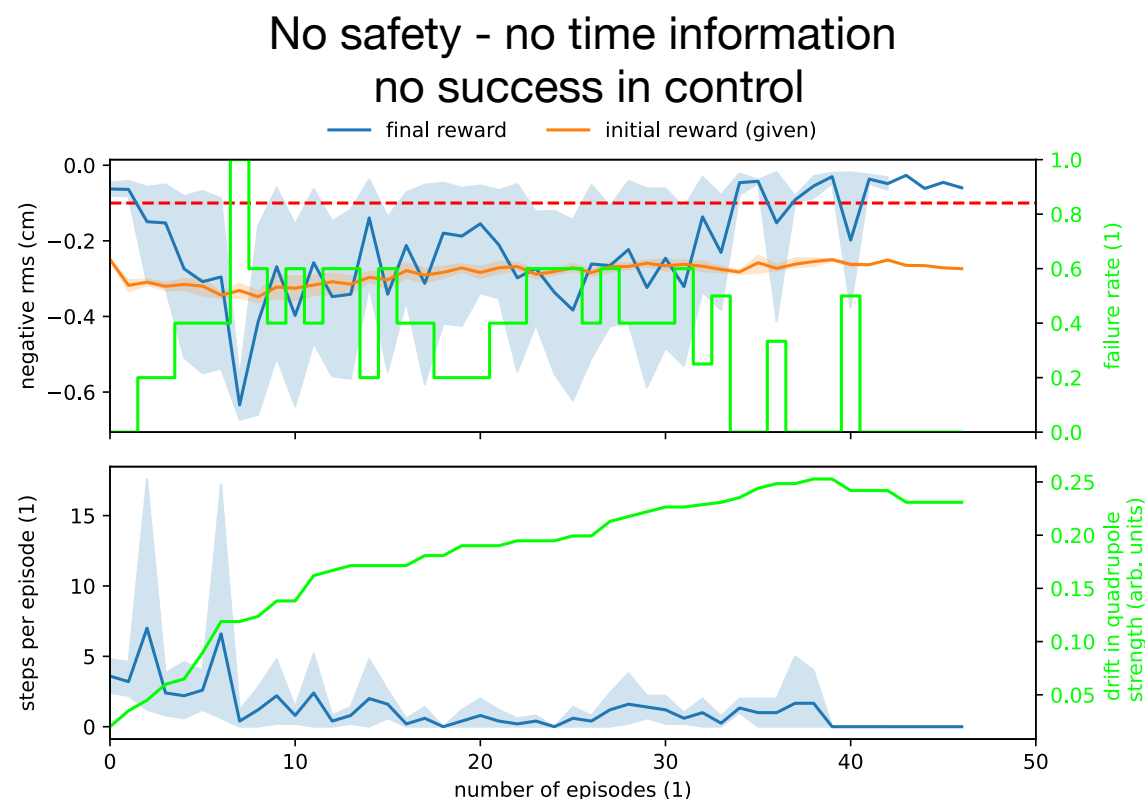
Safety + time information

little violations and stable performance



Non stationarity and safety

- Optics was distorted with a detuning of the quads by up to 20% with low timescale
- State was extended to incorporate the time step $s \rightarrow (s, t)$
- More weight on recent timepoints
- Safety also considered



Key points meta RL

- MAML leads to rapid and stable adaption, generalisation is good
- General simple and elegant concept also applicable to BO
- Stable and computationally fast and simple algorithms can be used (hardware)
- In the best case monotonic improvements during training (non destructive)
- We need a simulation covering the true problem as convex hull
- Meta training might be computational intense
- Implementation might be tricky
- Tuning is hard

