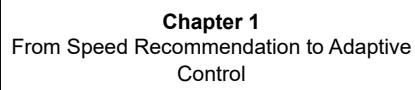


I - Contextualization



II - State of the Art

Chapter 2.1

How can a learning-based controller adapt continuously to non-stationary dynamics while maintaining reliability and safety ?

Chapter 2.2

How can a learning architecture model non-linear, non-stationary dynamics from an online stream of data while avoiding catastrophic forgetting ?

III - Contributions

Chapter 4

Solving Control Tasks with CELL
(Model Predictive Control)

Chapter 3

Context Ensemble Local Learning
(CELL formalism \rightarrow oCELL \rightarrow kCELL)

Chapter 5

Prospective works on scalability and use of
CELL modularity
(CELL formalism \rightarrow sgpCELL)

IV - Conclusions and Future Research Directions

Chapter 6

Industrial Use Cases

Chapter 7

Conclusion and Future Works