

My first LaTeX document

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We have now added a title, author and date to our first \LaTeX document! The following is a figure produced in the study of this essay. It illustrates the optimization performance and control behaviors of MPC *ModelPredictiveControl* and RBC *RuleBasedControl*.

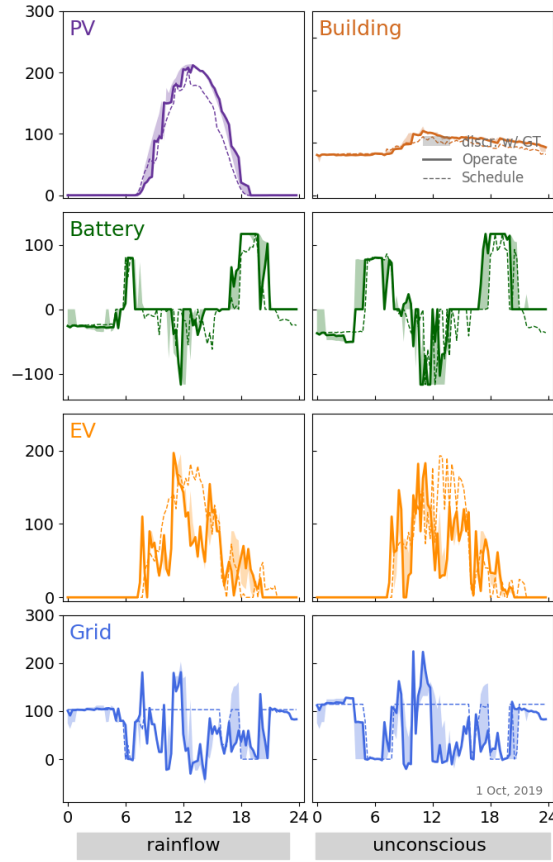


Figure 1: The control performance of MPC and RBC

The following paragraphs implement different text styles and rules:

- `\textbf{text}`: This command makes **bold text**.
- `\textit{text}`: This command applies *italics sytle*.
- `\underline{text}`: This command applies underline sytle.
- Cascading commands combine different styles: ***Bold+italics+underline***
- Another useful command is `\emph{text}`, which automatically decides the text style depending on the context:
The movie *Dead Poets Society* is widely spread by "*Carpe diem*", a Latin adage means seize the day.
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*Supervised by Wang Zhe and JU Yi for this paper.

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The following part is a brief introduction to the principles and algorithms of XGBoost:

Some math expressions:

- $\hat{y}_i^{(T)} = \sum_{i=1}^T f_i(x_i)$