

CACOM UPDATE

Aydin & Oussama

04.02.2021

Normstep algorithm by Gerhard Aigner @ Trium

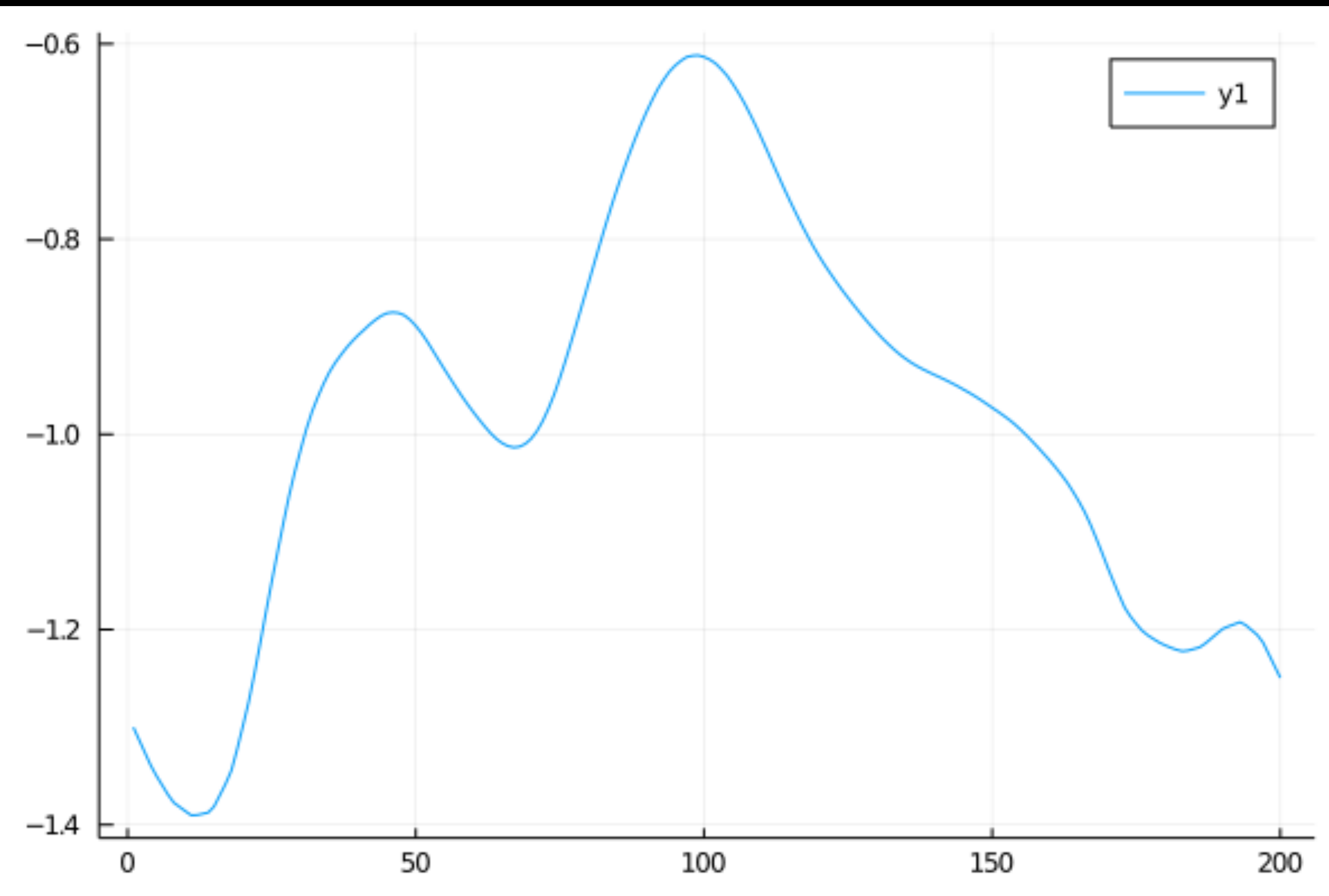
- Load actibelt file and analyse steps -> detected step time
- Grouping consecutive steps
- Filtering the largest group
- Normalizing multiple steps

Dataset

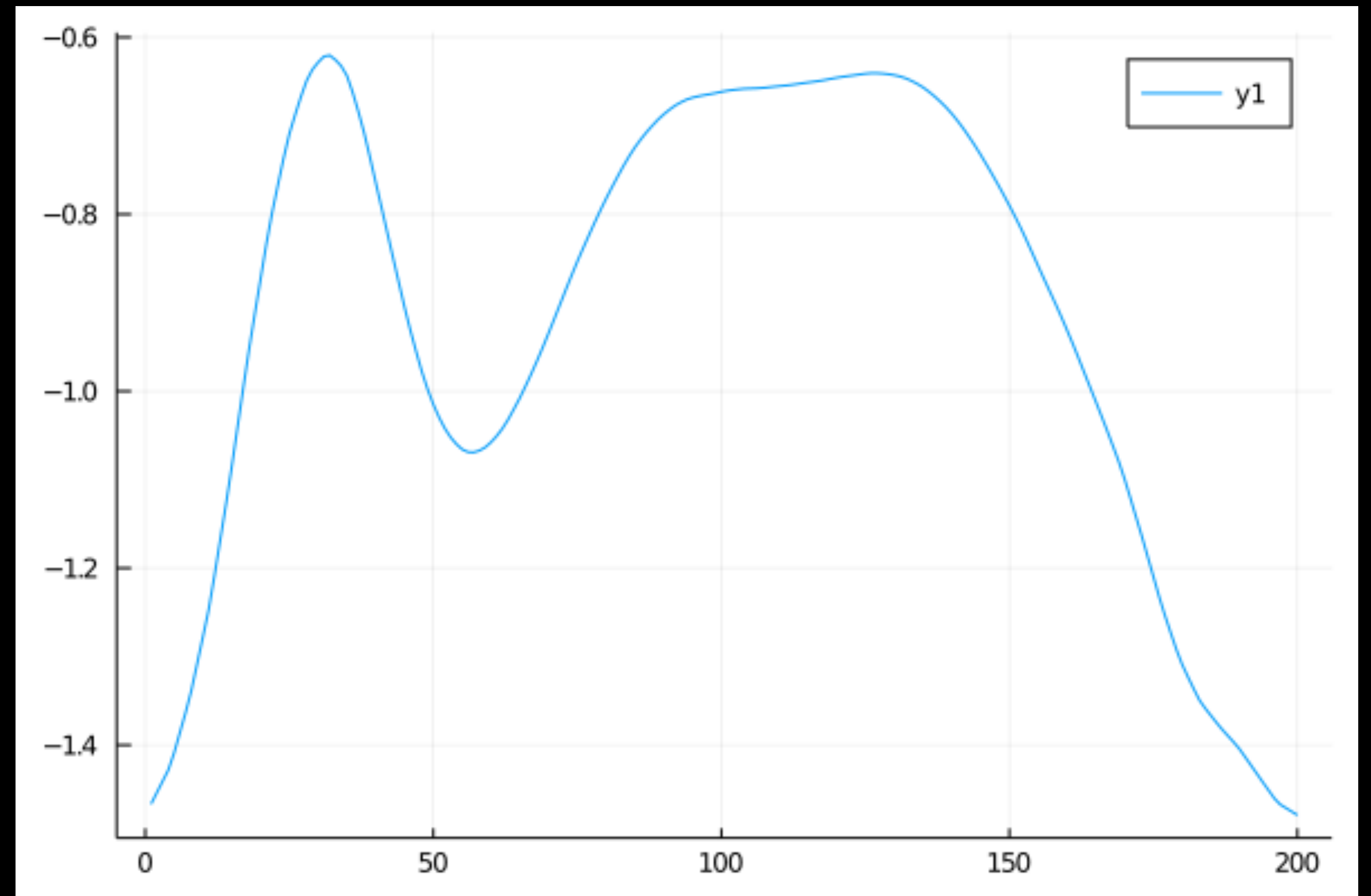
- 2 measurements
- Aydin - 15 min. Duration -> after grouping and filtering for largest group -> 1398 distinct steps
- Oussama - 15 min. Duration -> after grouping and filtering for largest group -> 402 distinct steps

Plots

X-acceleration - left step



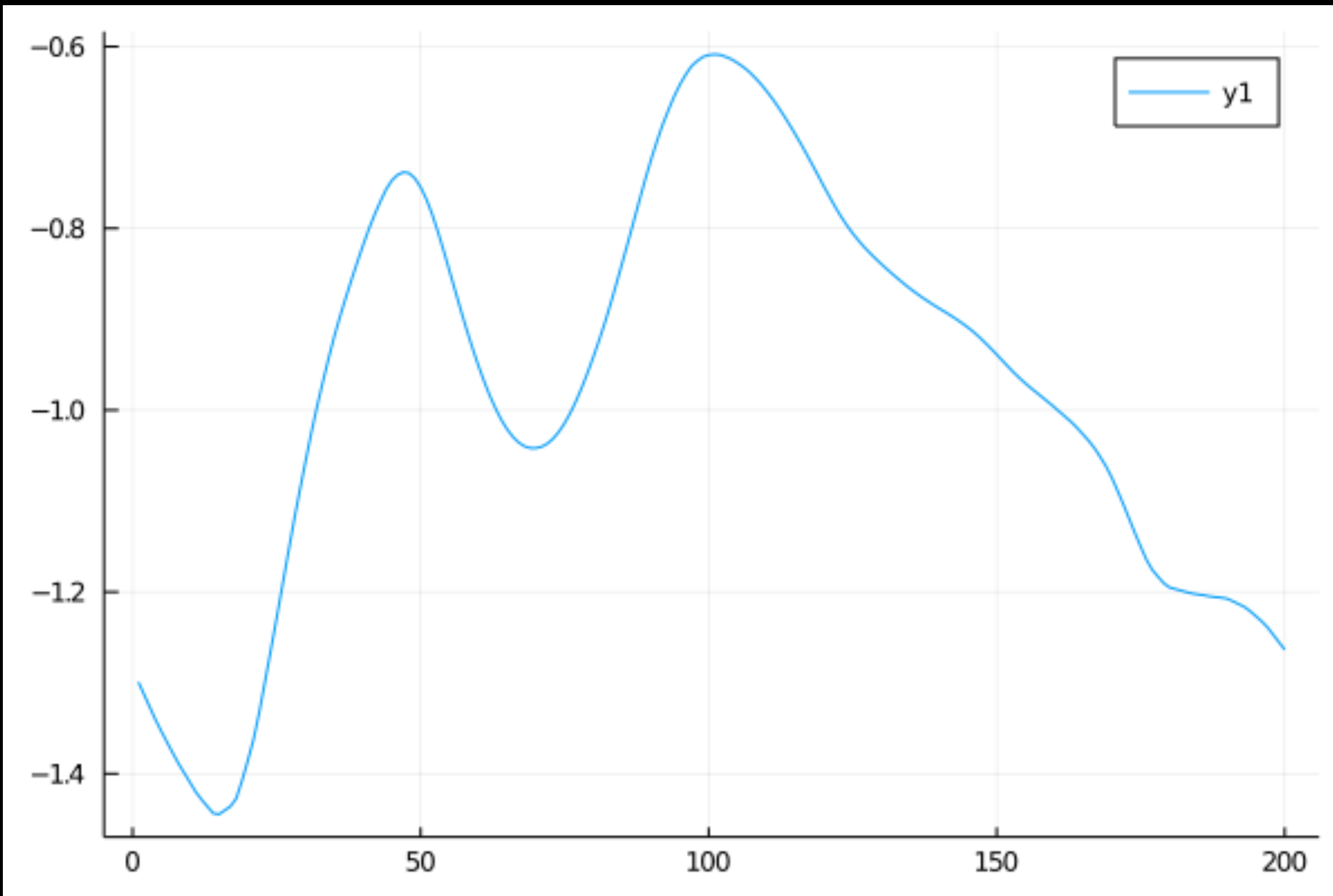
- Aydin



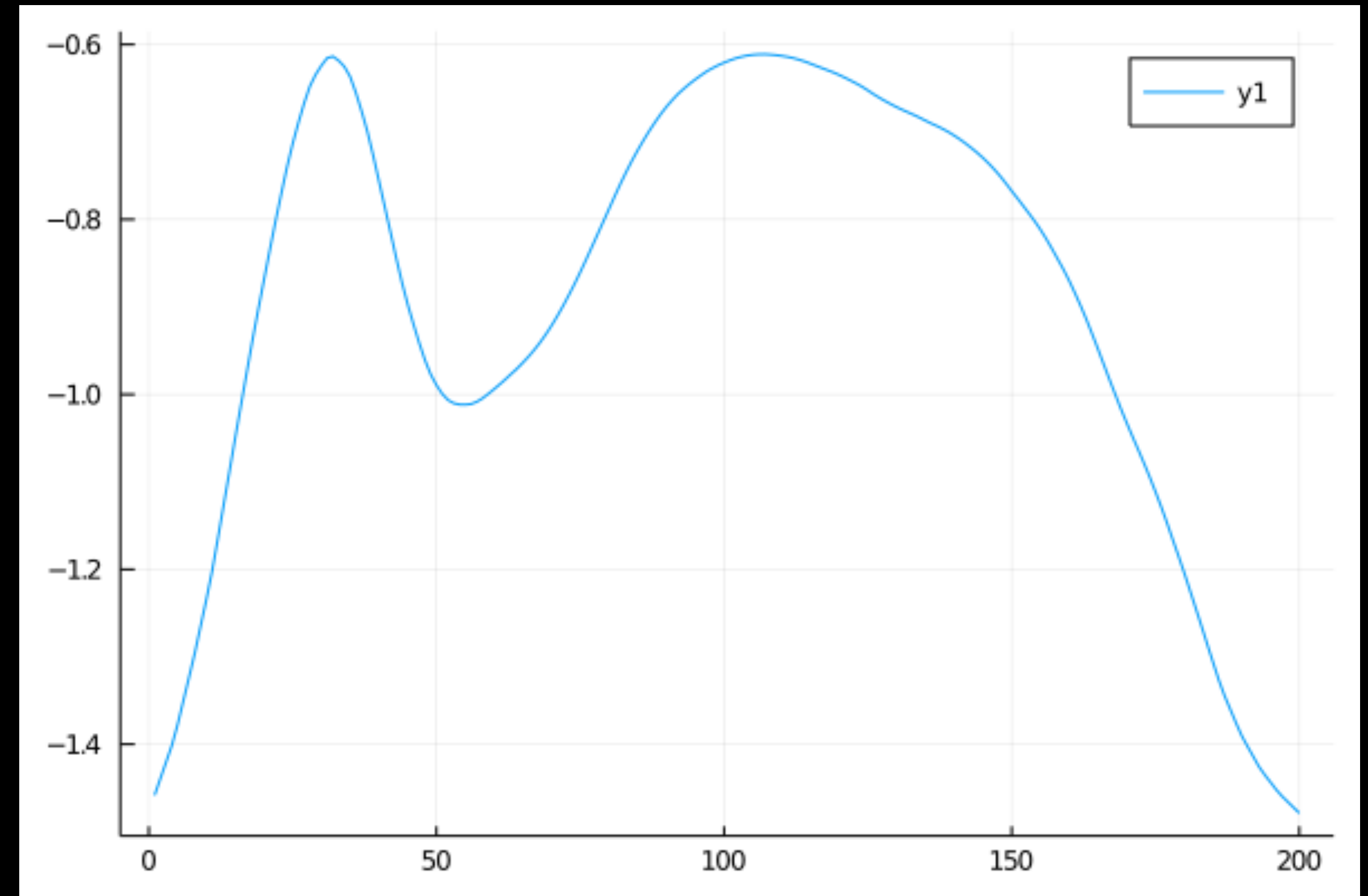
- Oussama

Plots

X-acceleration - right step



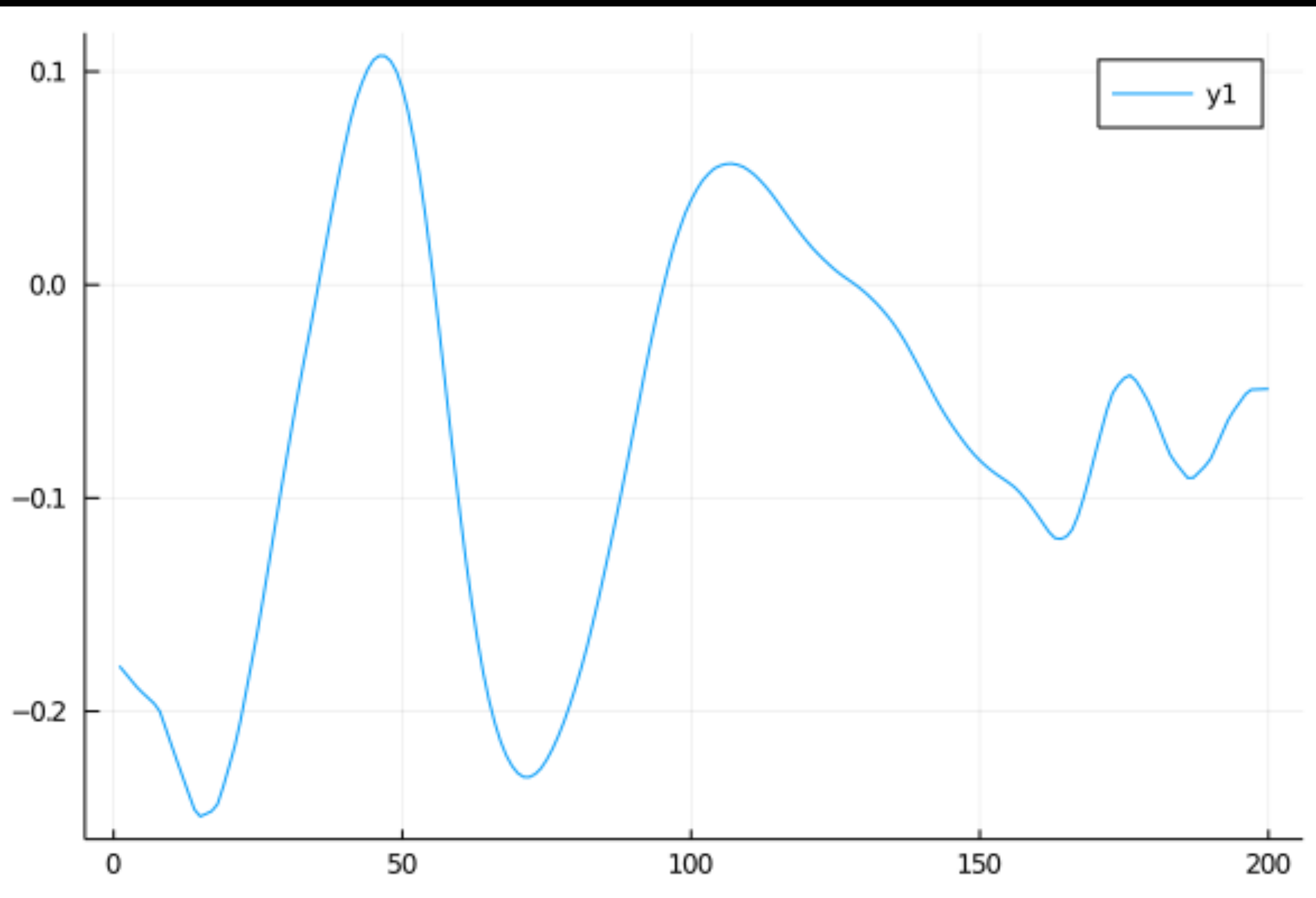
- Aydin



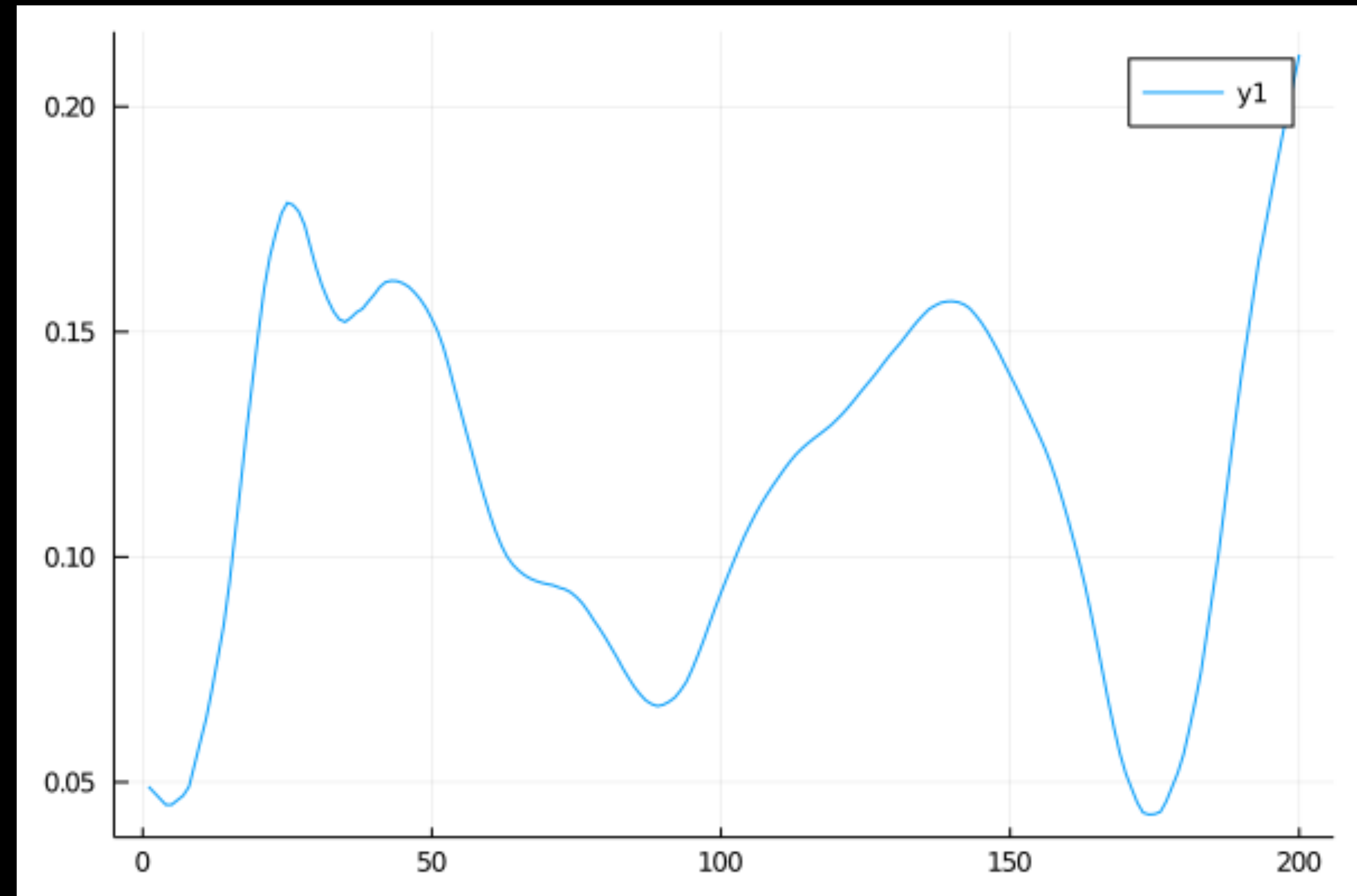
- Oussama

Plots

Y-acceleration - left step



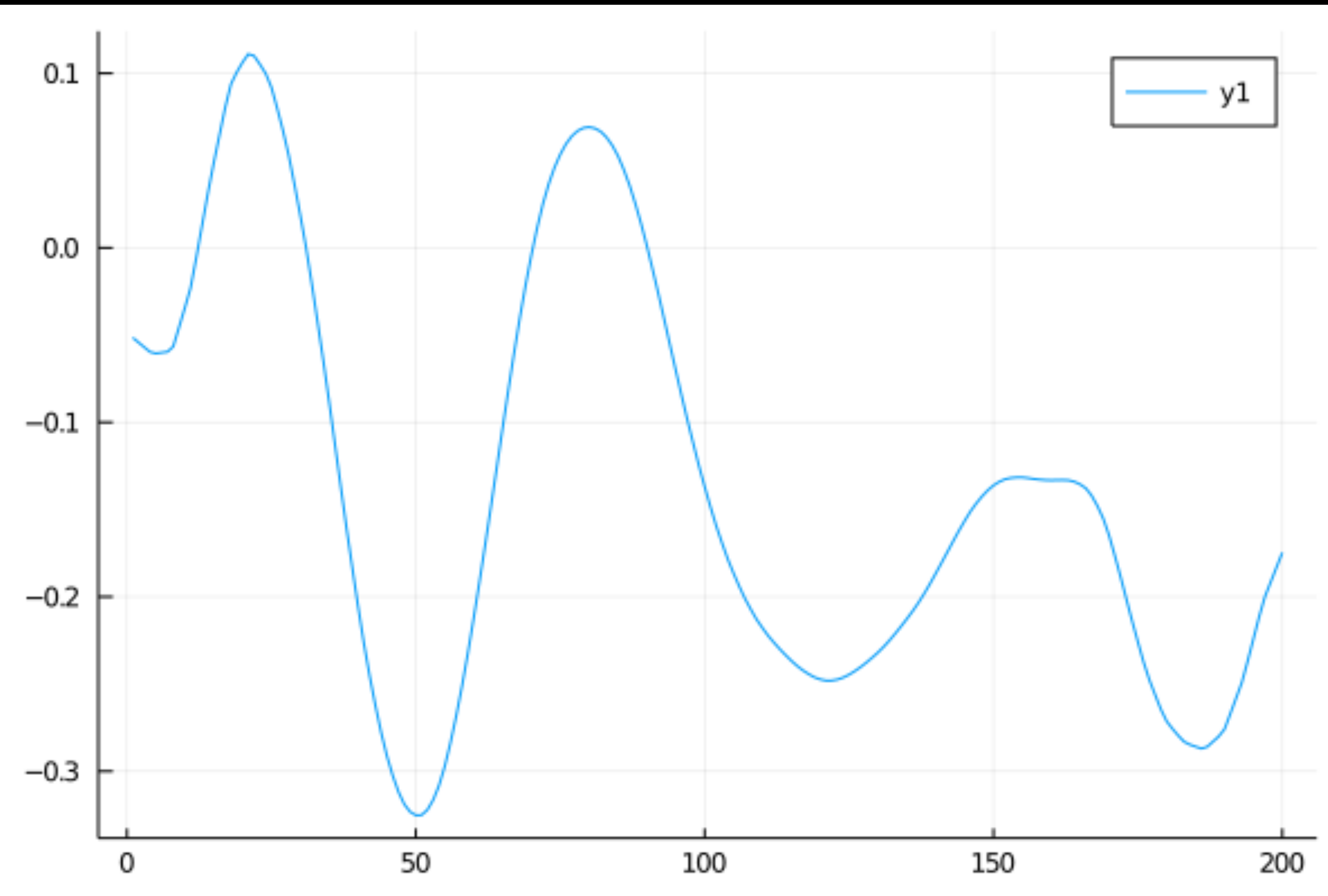
- Aydin



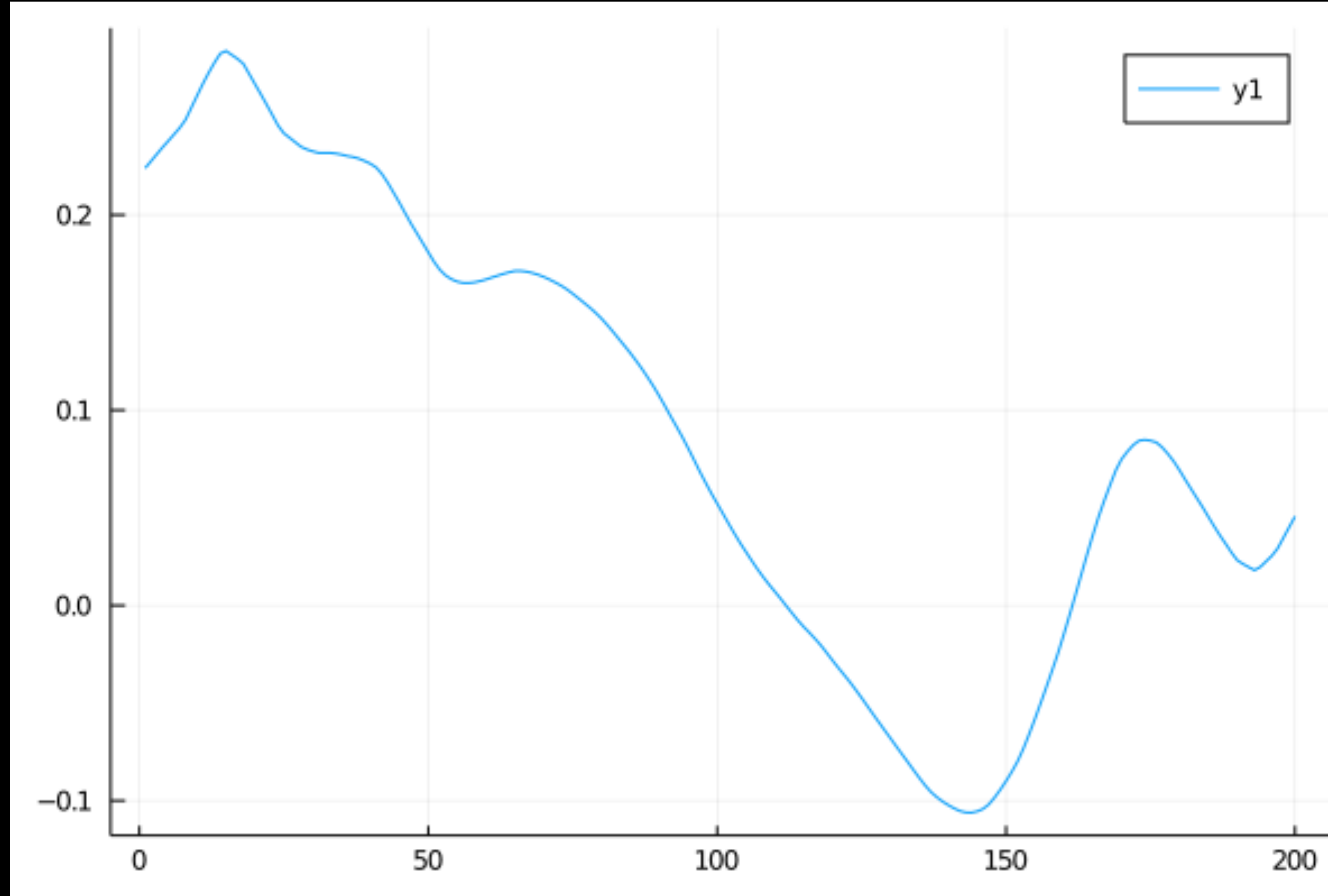
- Oussama

Plots

Y-acceleration - right step



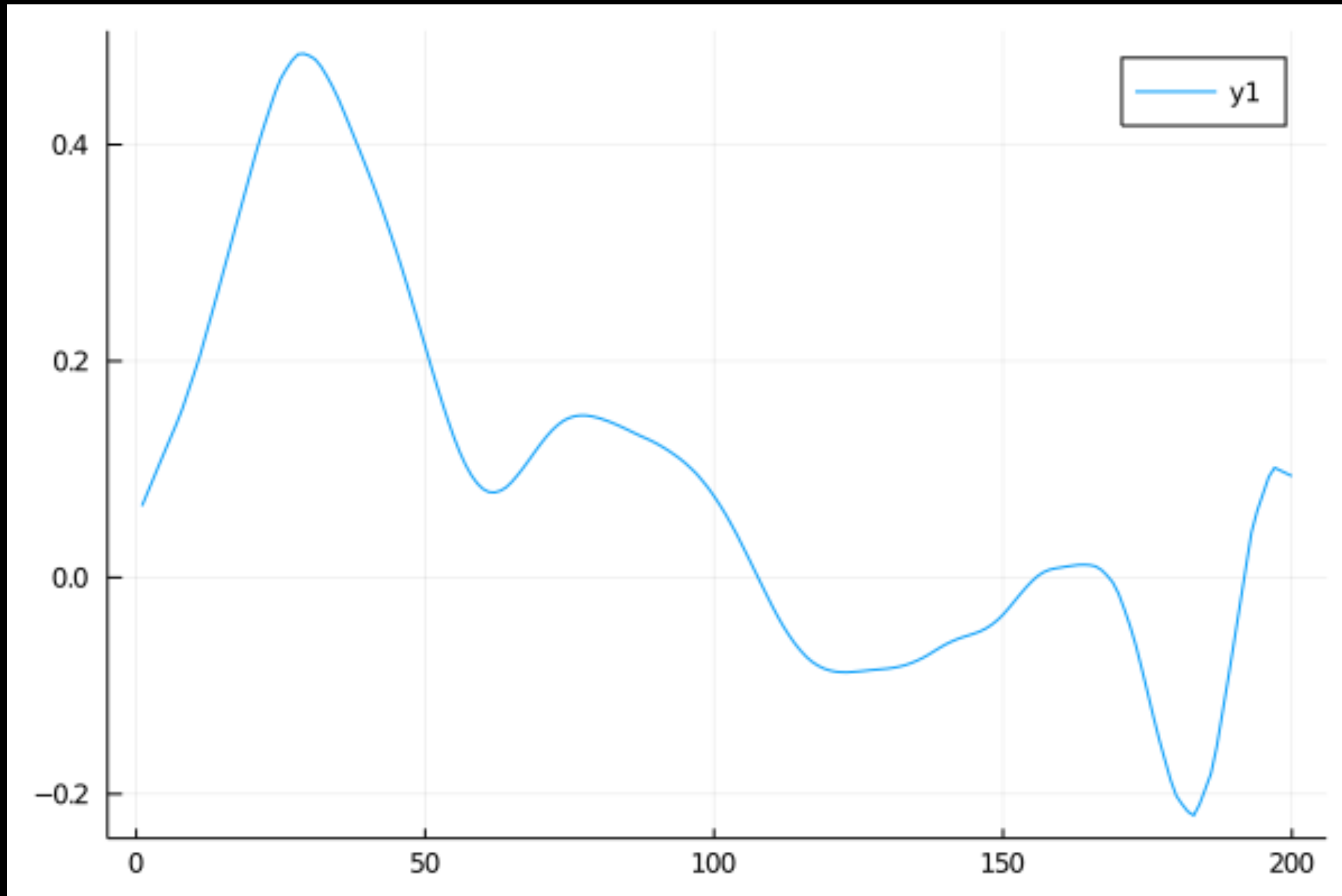
- Aydin



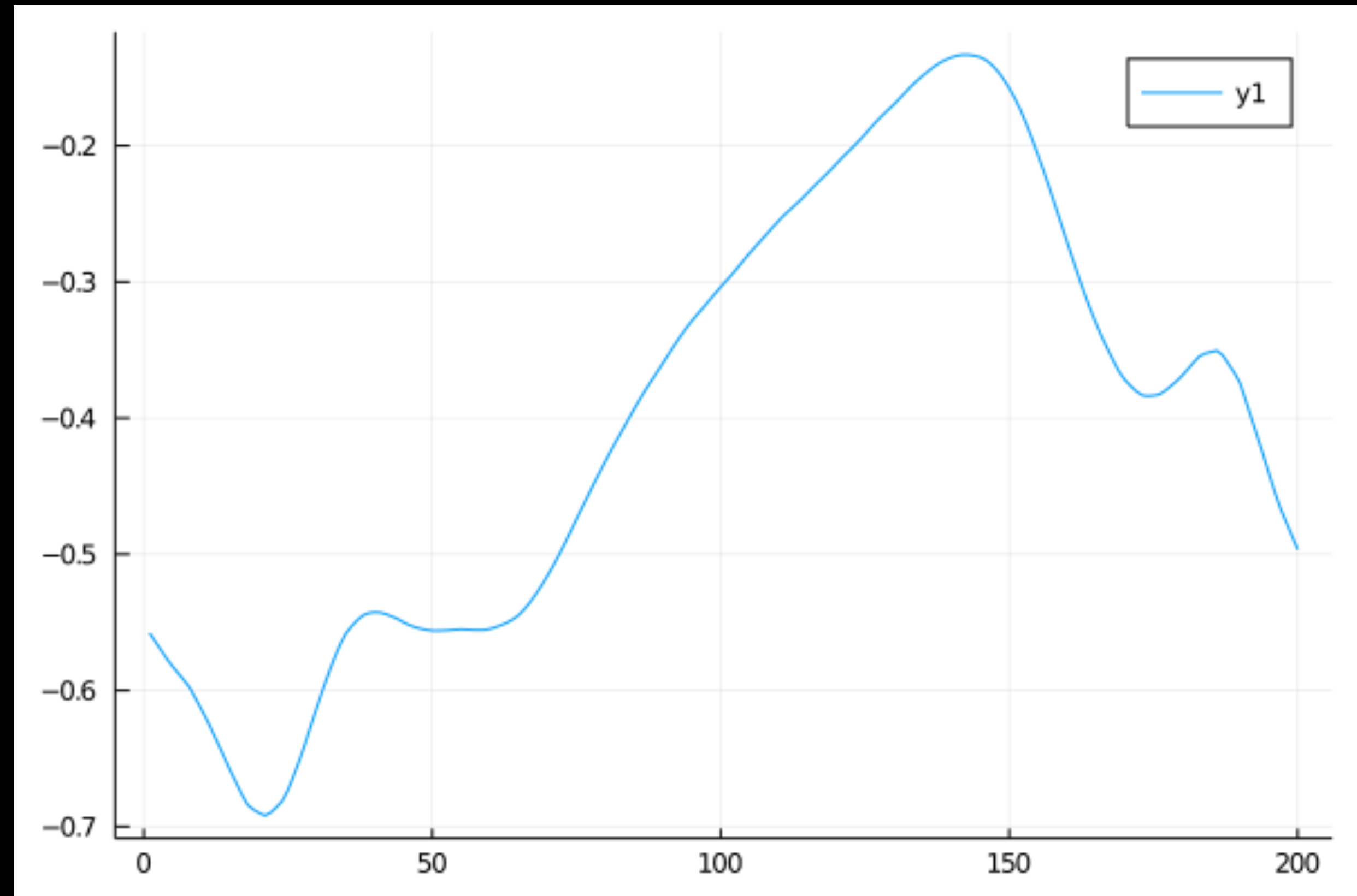
- Oussama

Plots

Z-acceleration - left step



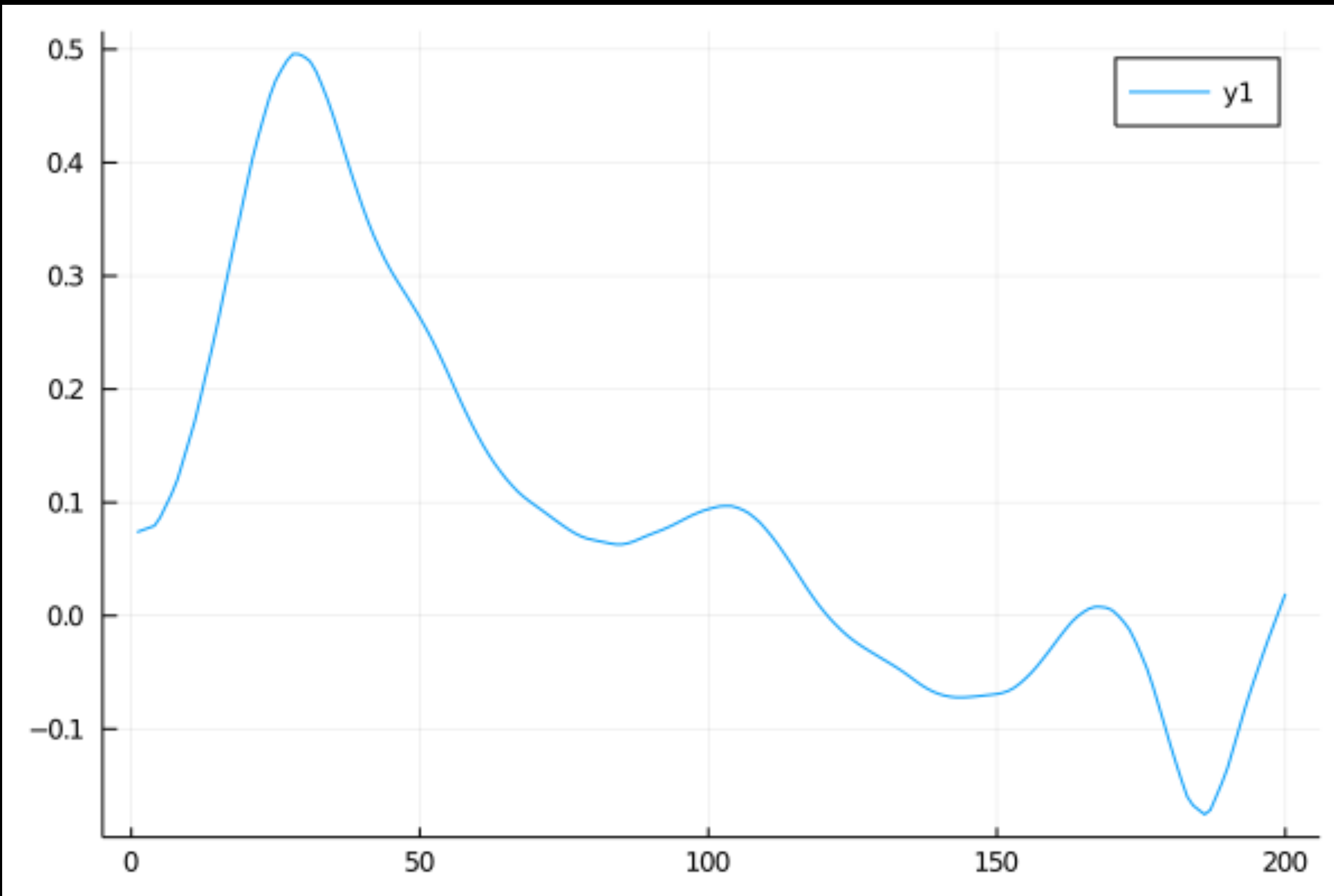
- Aydin



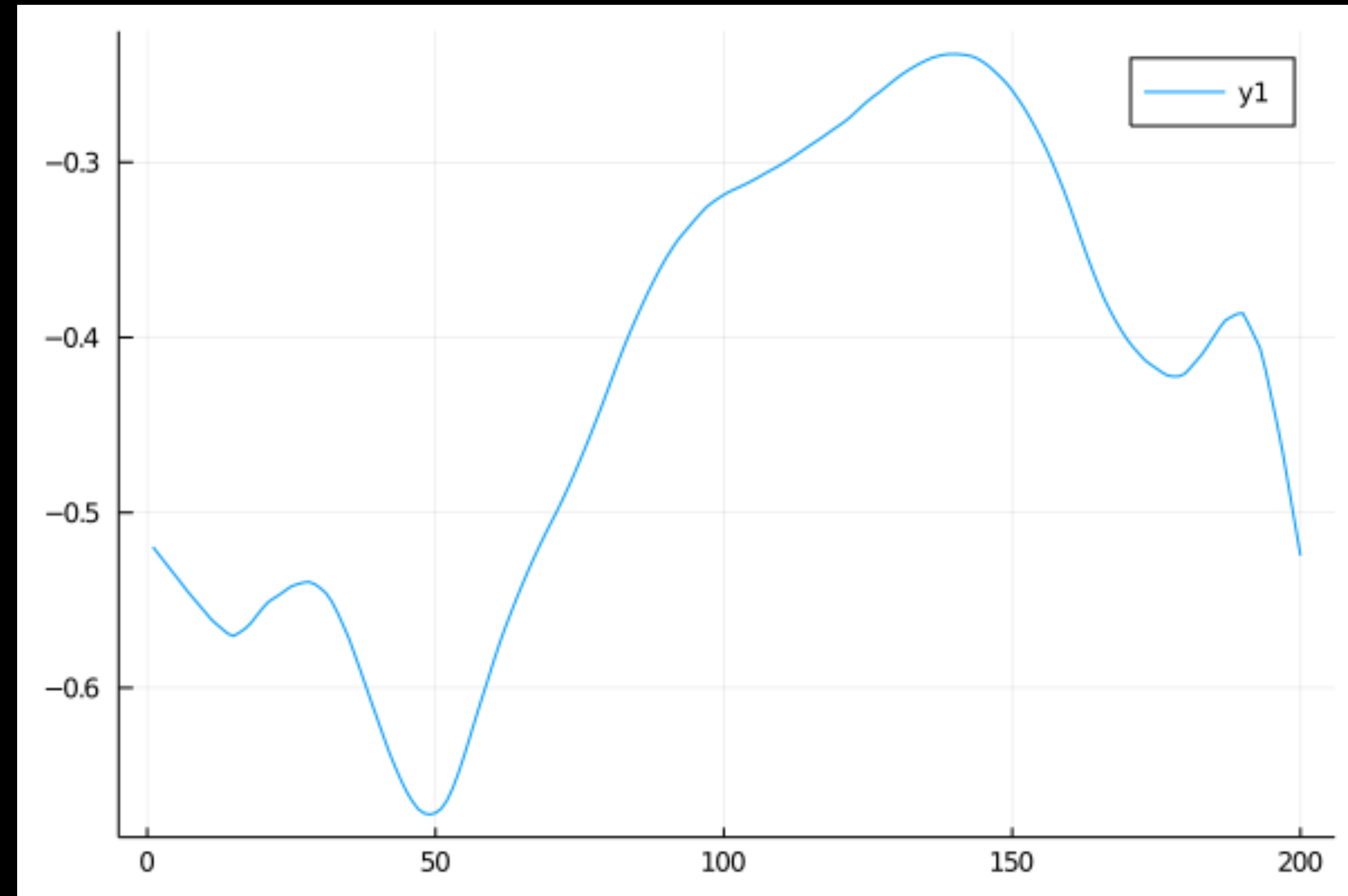
- Oussama

Plots

Z-acceleration - right step



- Aydin



- Oussama

What to improve? —> Next week's tasks

- Think about physiological dependence ? What does really these plots imply?
- Improve your code - write some useful functions as they did
- Calculate standard deviation
- A better presentation
- Add normstep variability and normstep asymmetry
- Collect more data
- Provide better plots