Wydział Elektroniki i Technik Informacyjnych
Politechnika Warszawska

Systemy mikroprocesorowe w sterowaniu

Sprawozdanie z projektu nr 1

Mateusz Dziwulski, Jakub Szczepański

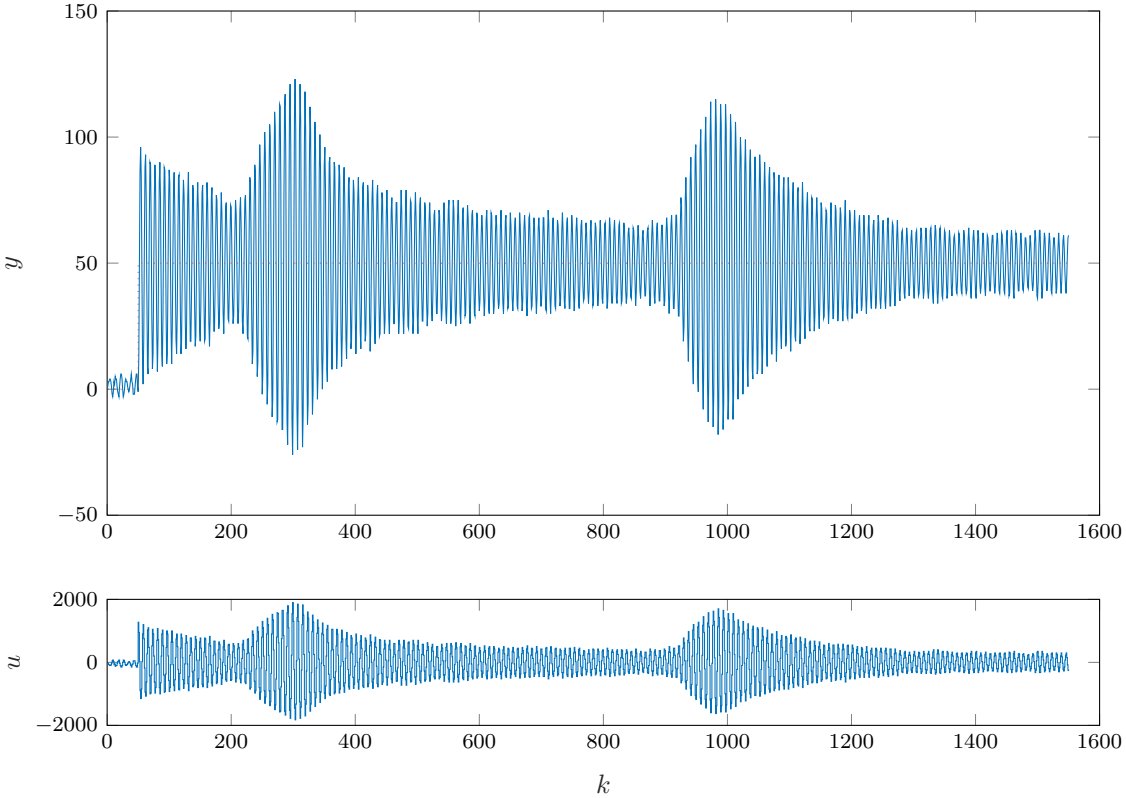
Warszawa, 2017

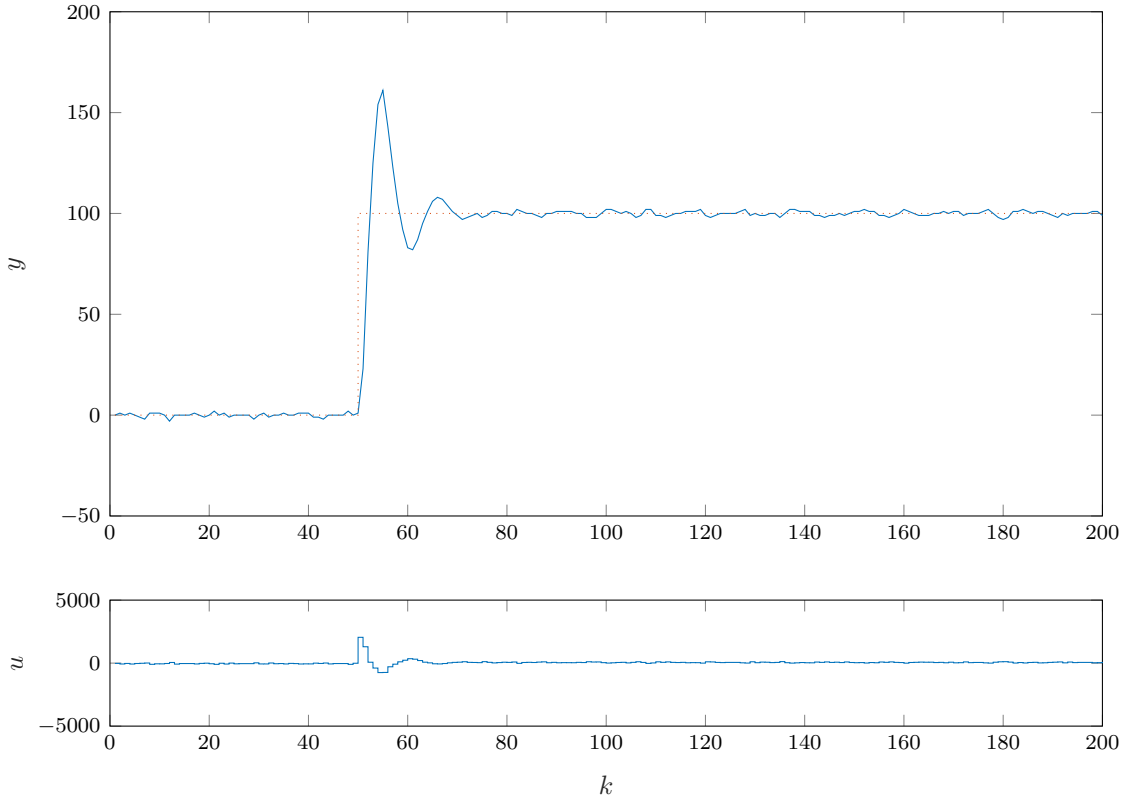
Spis treści

1. Wstęp

Dla prostoty i przejrzystości sprawozdania wykorzystane zostały oznaczenia pierwotnie wprowadzone w skrypcie z przedmiotu STP.

2. Algorytm PID





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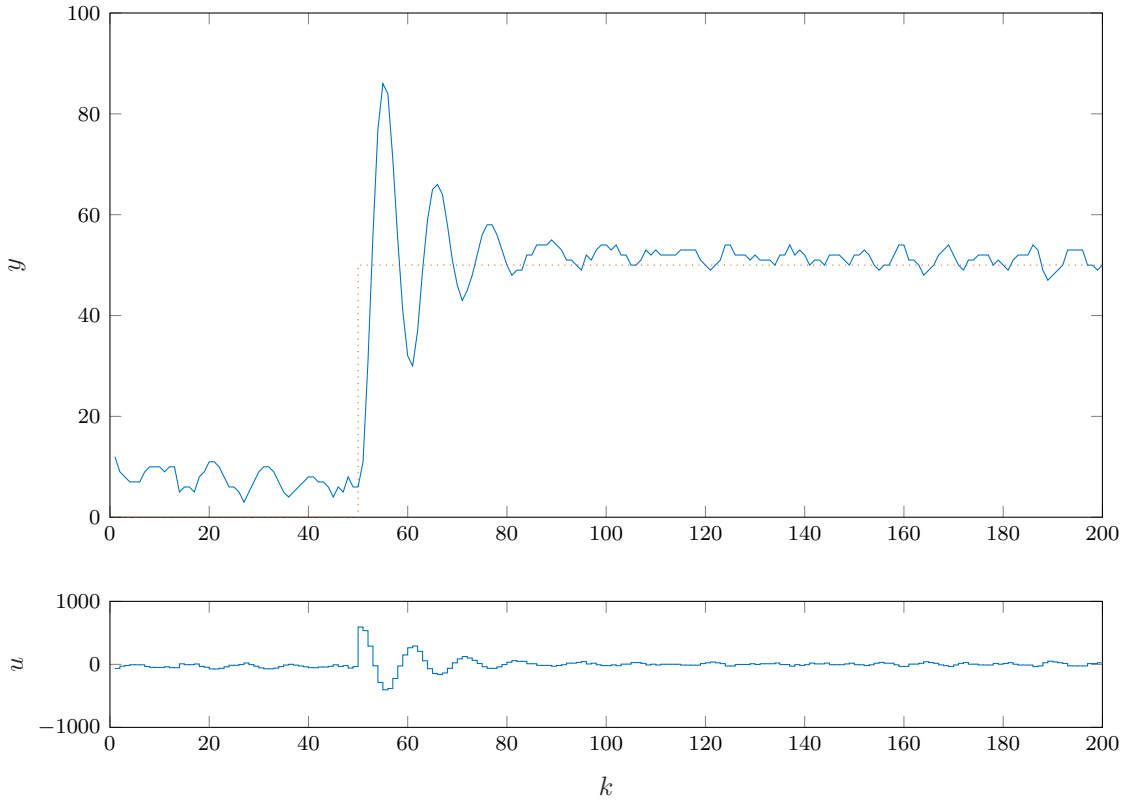

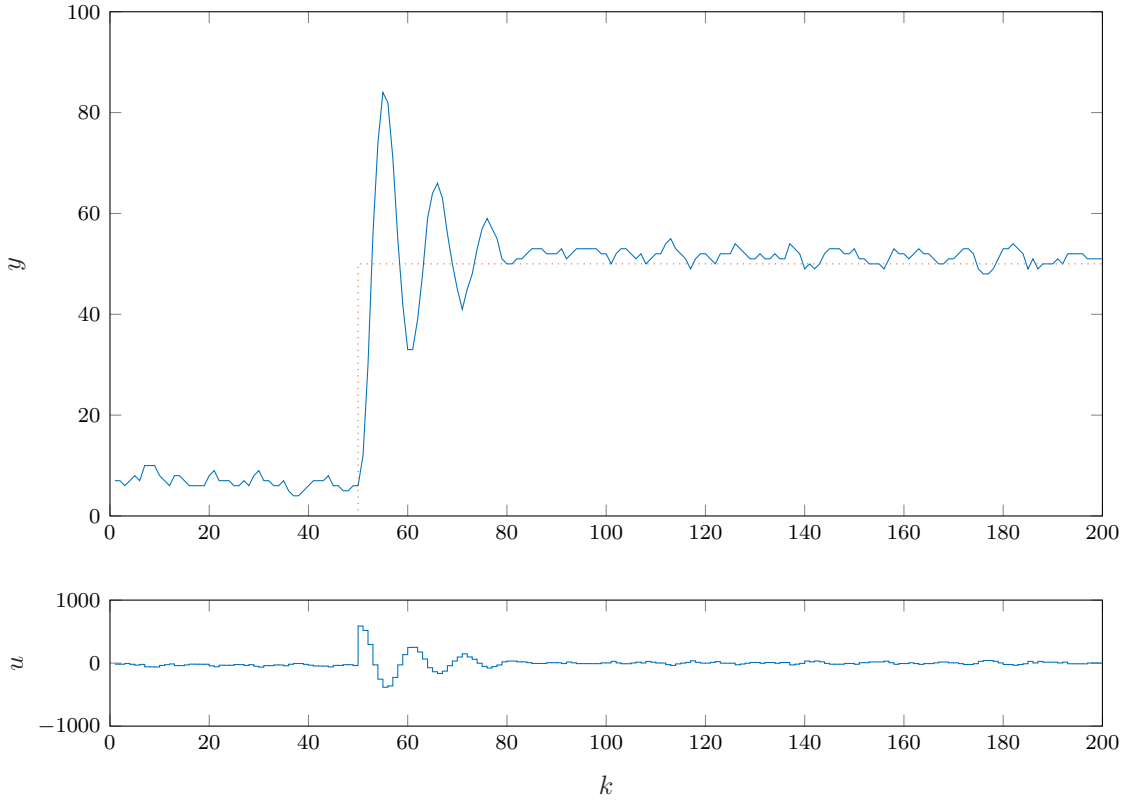
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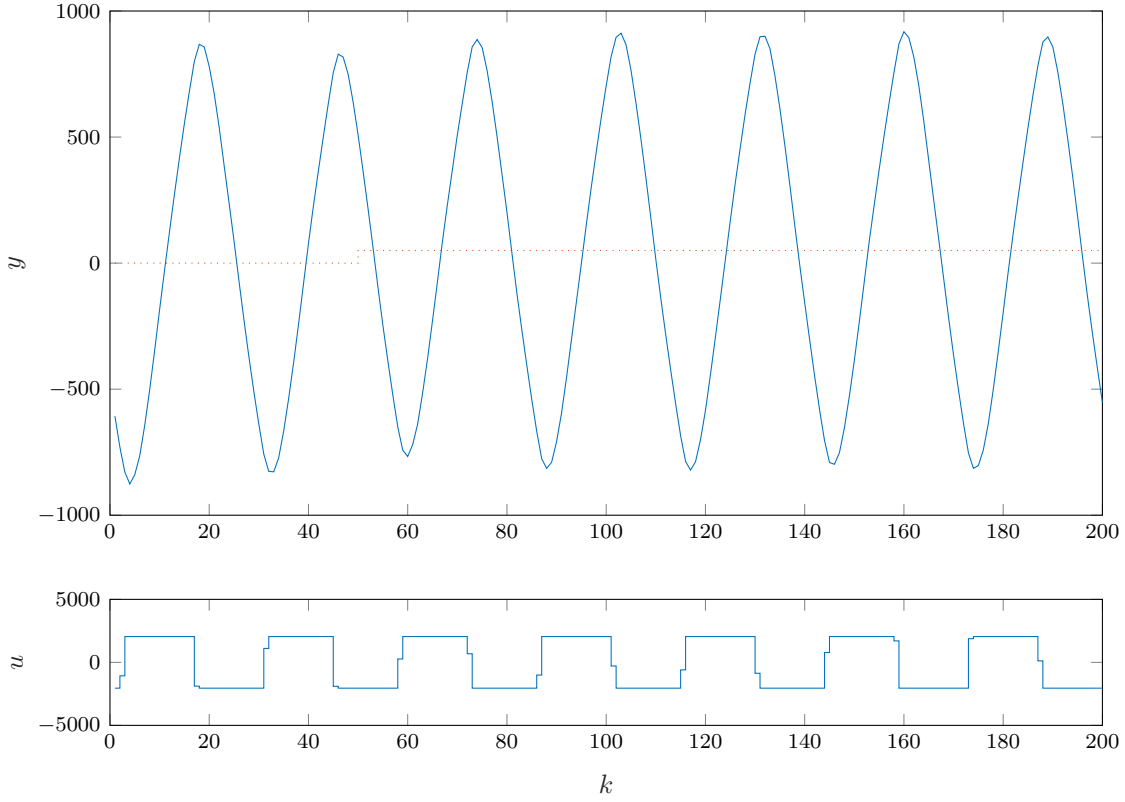
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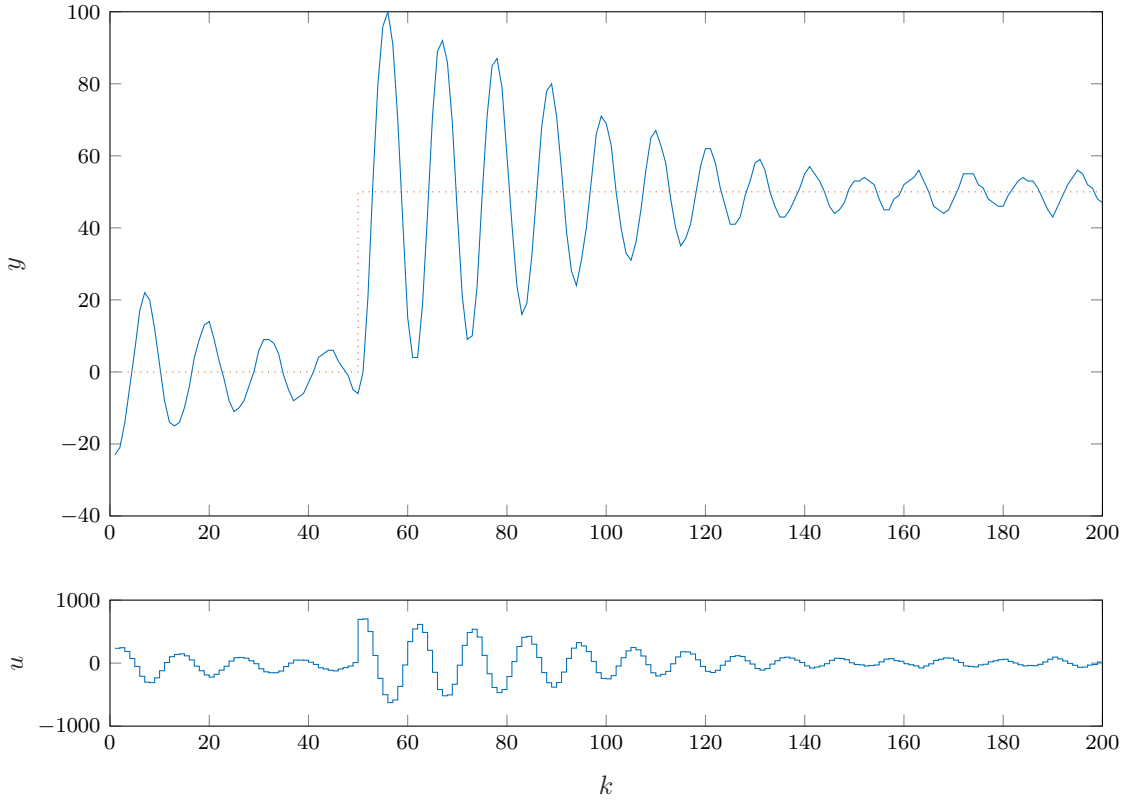
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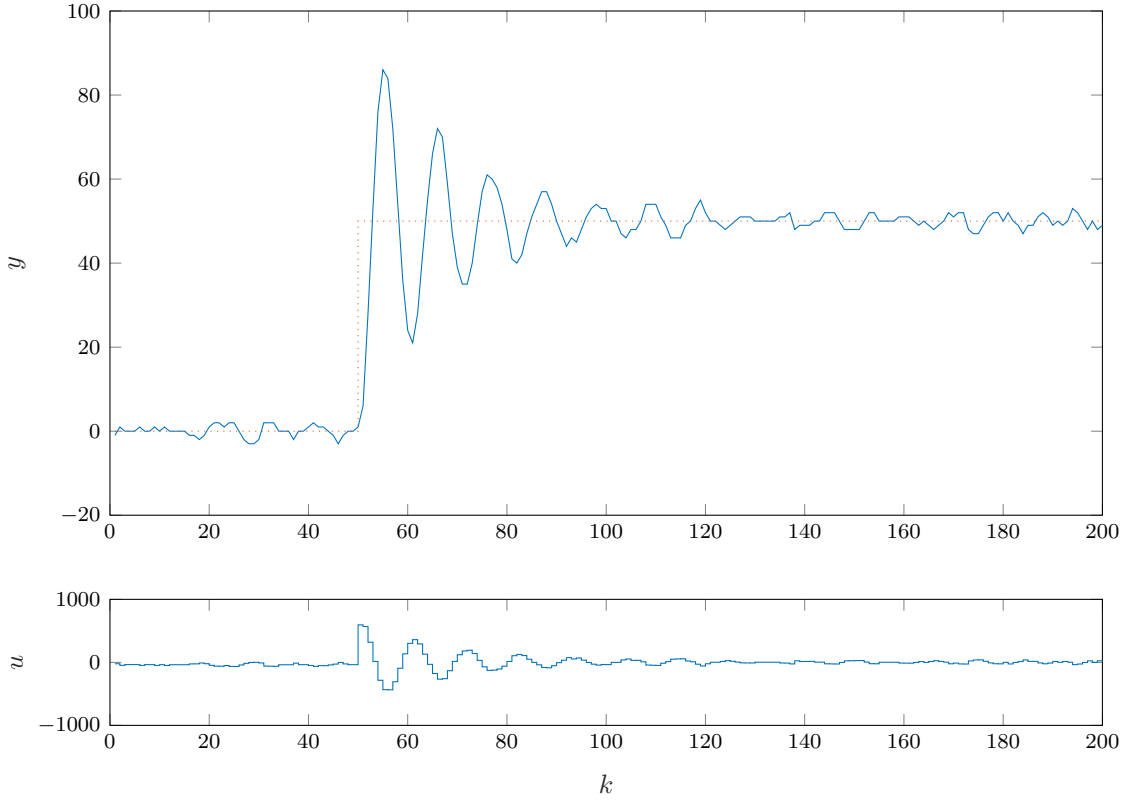
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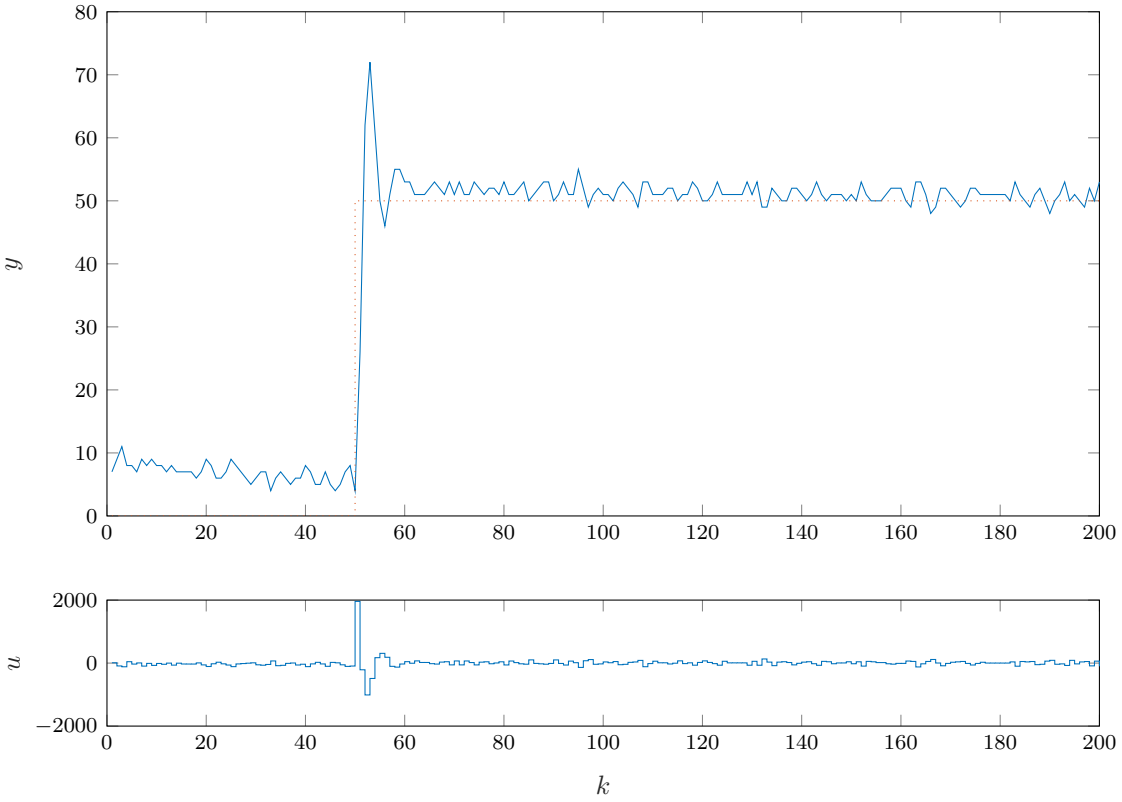
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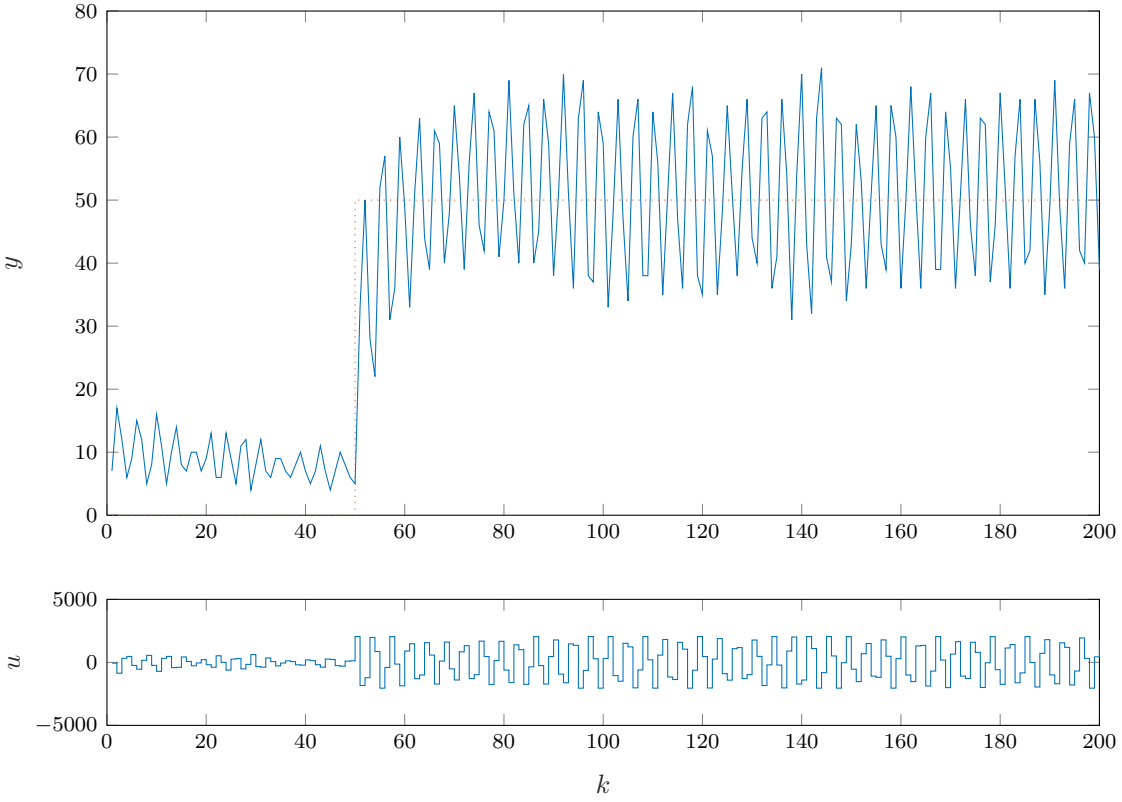
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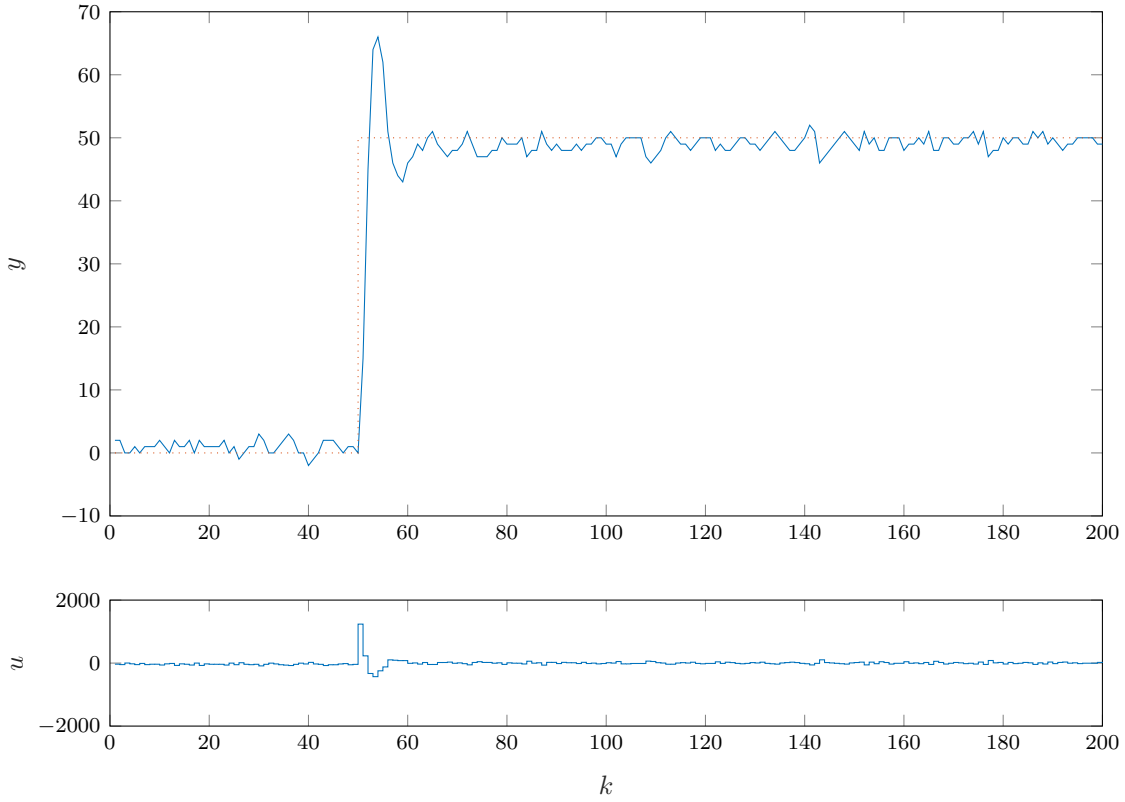
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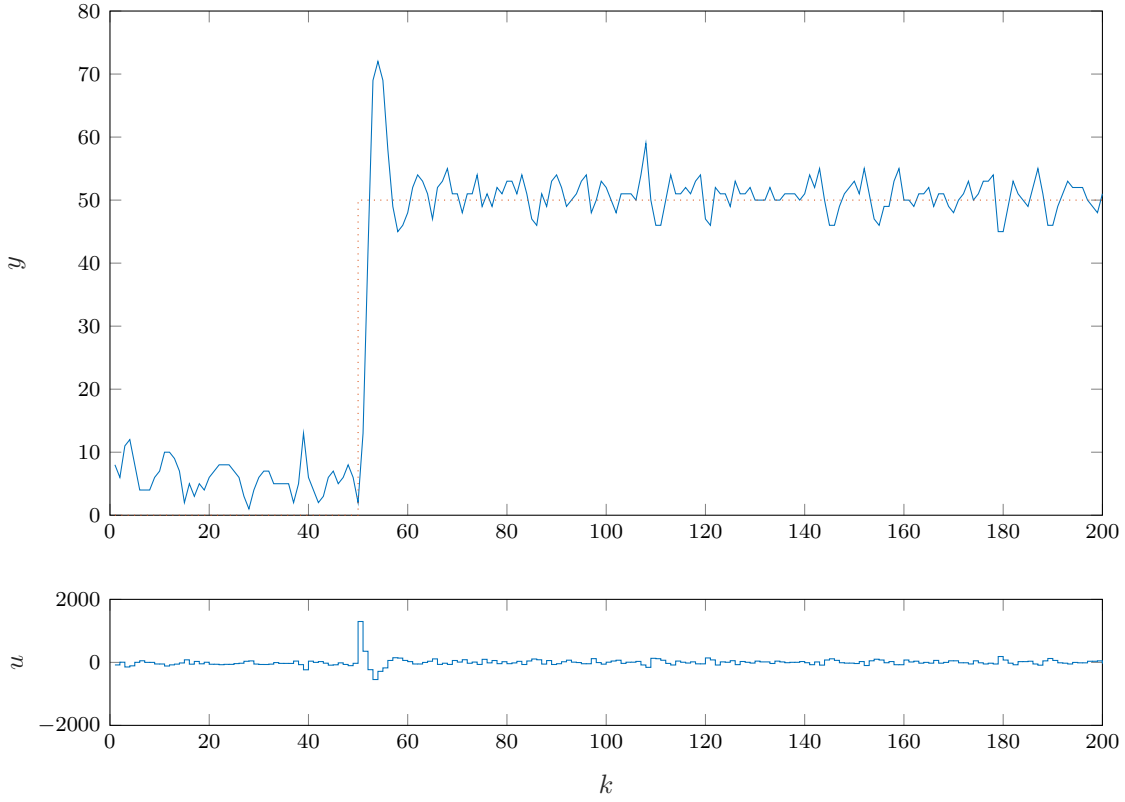
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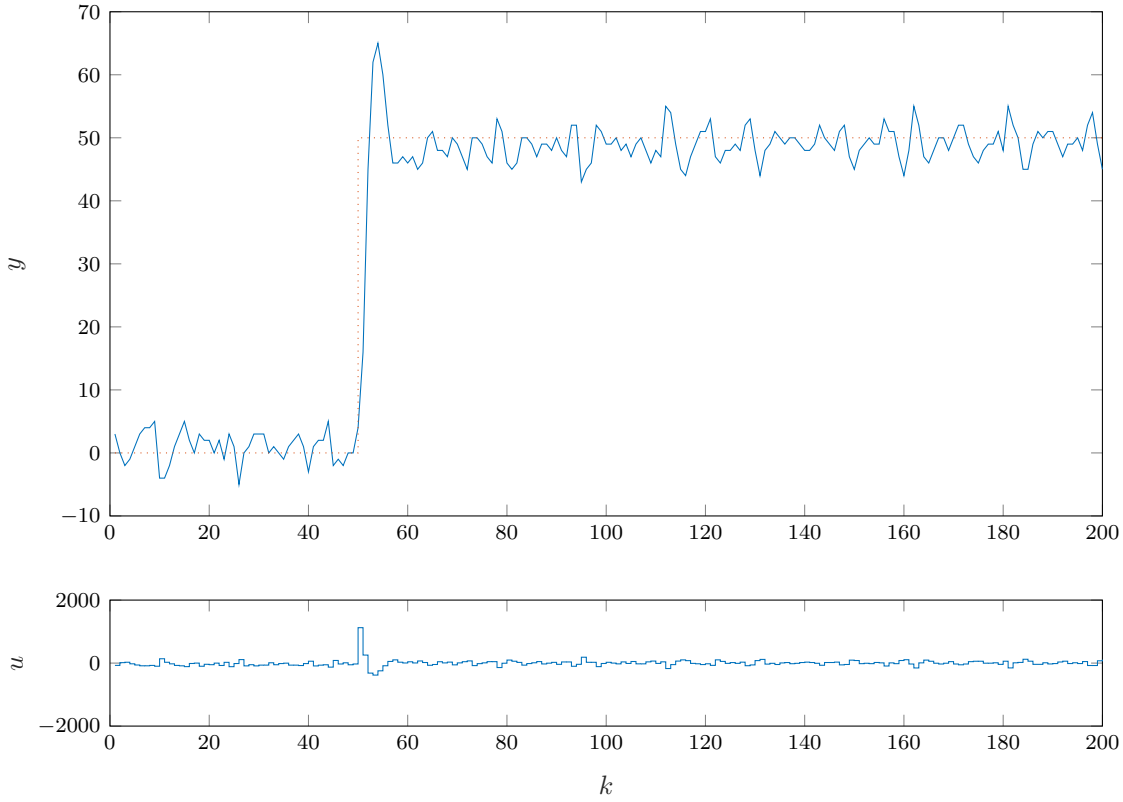
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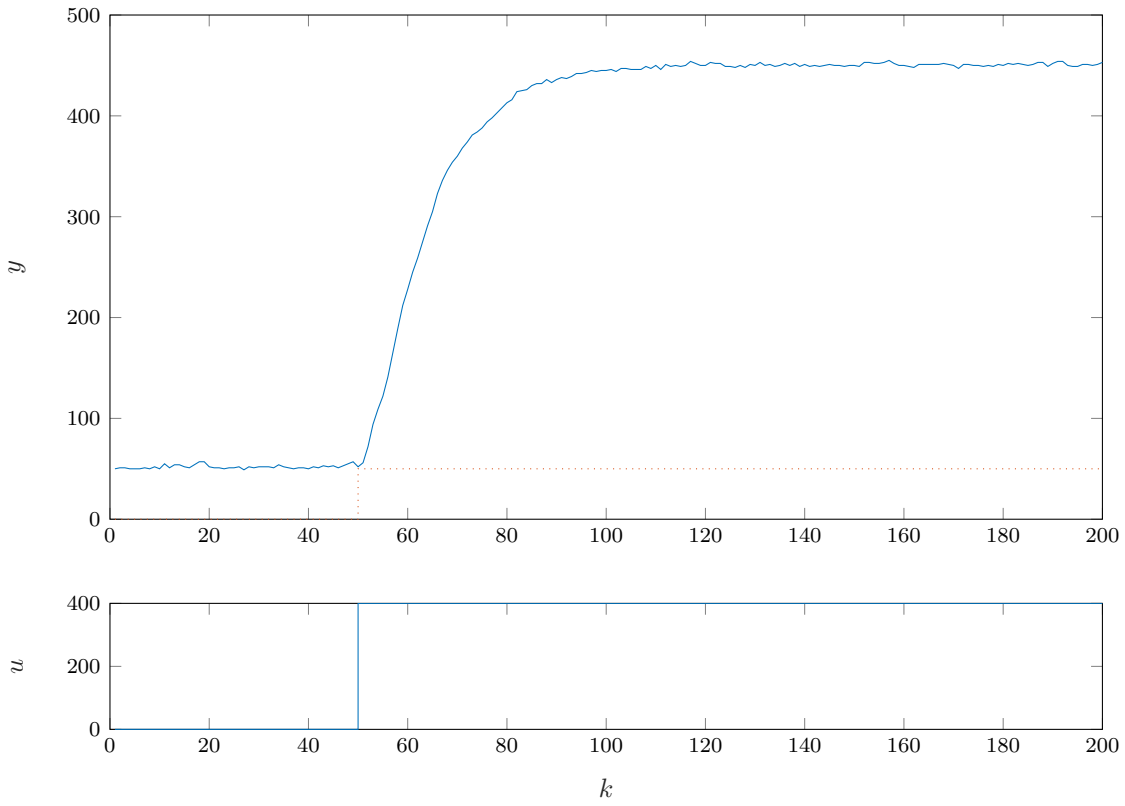
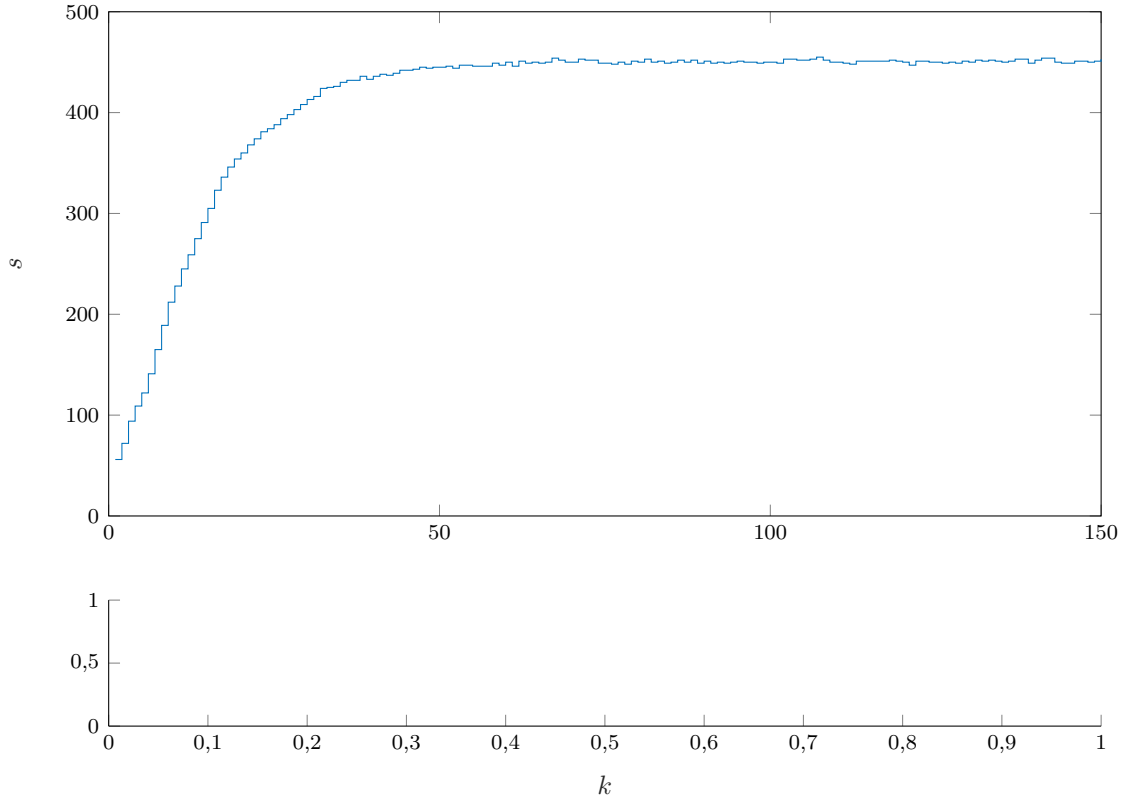
3. Algorytm DMC

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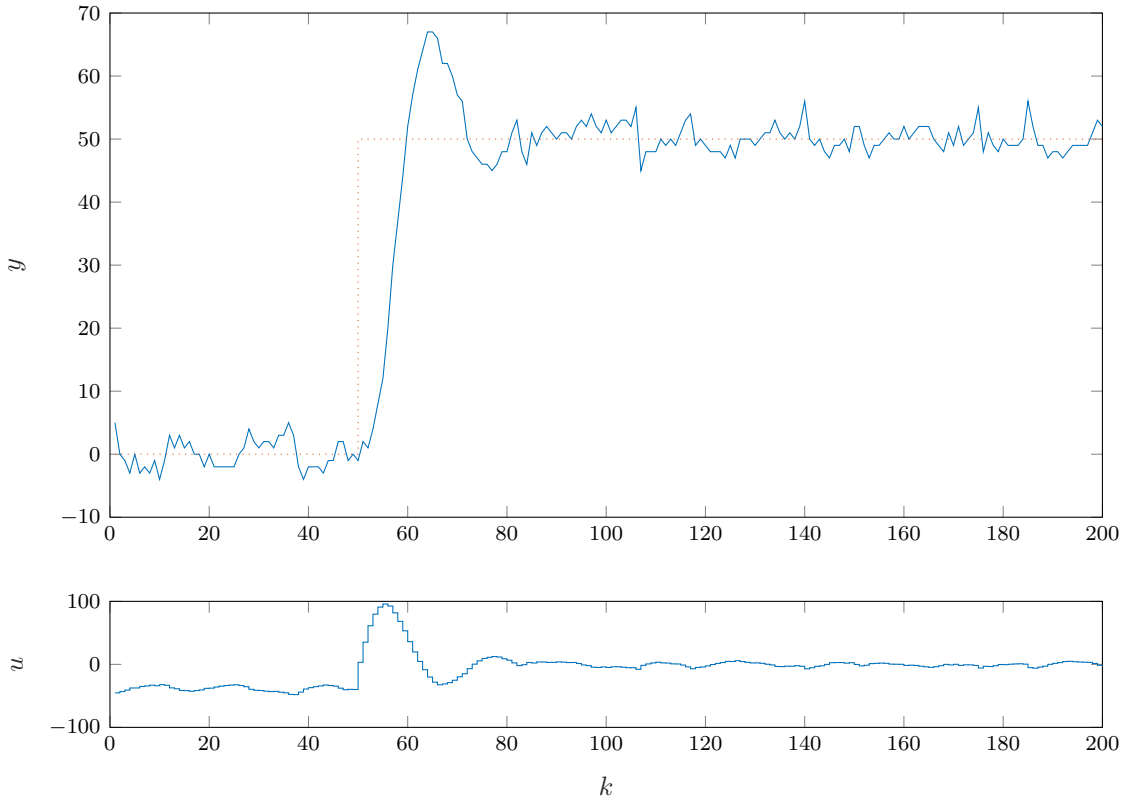
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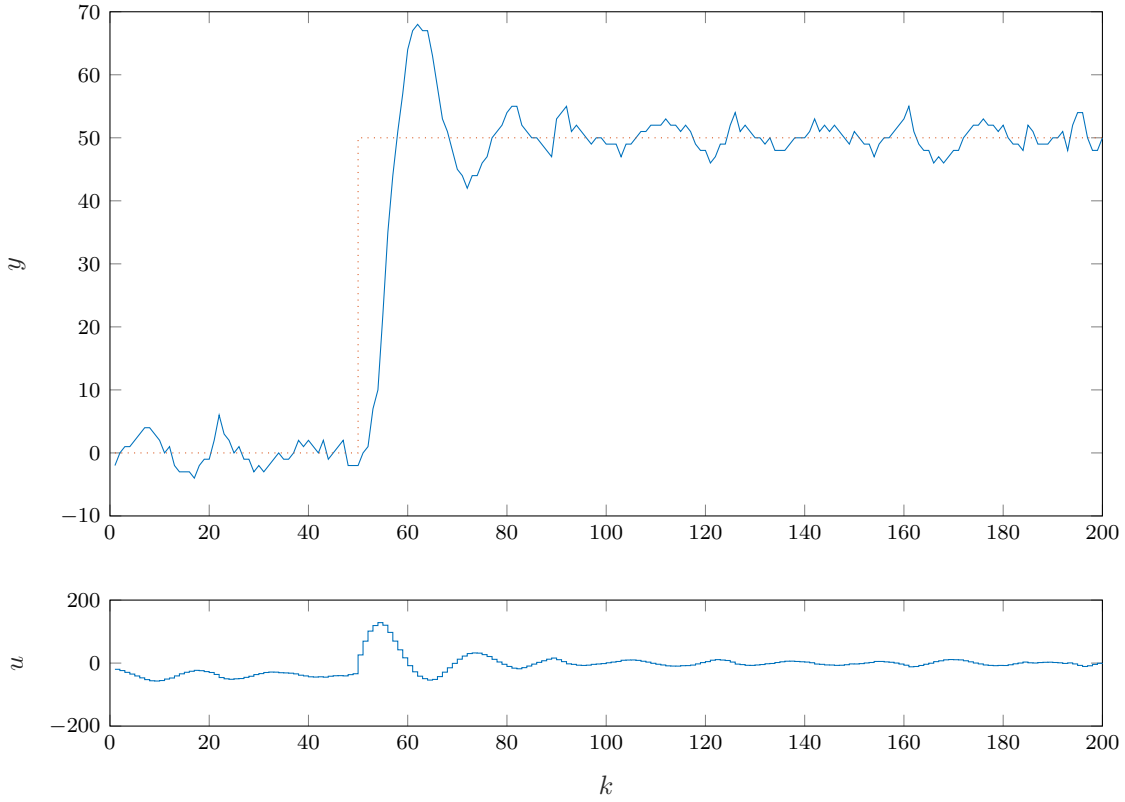
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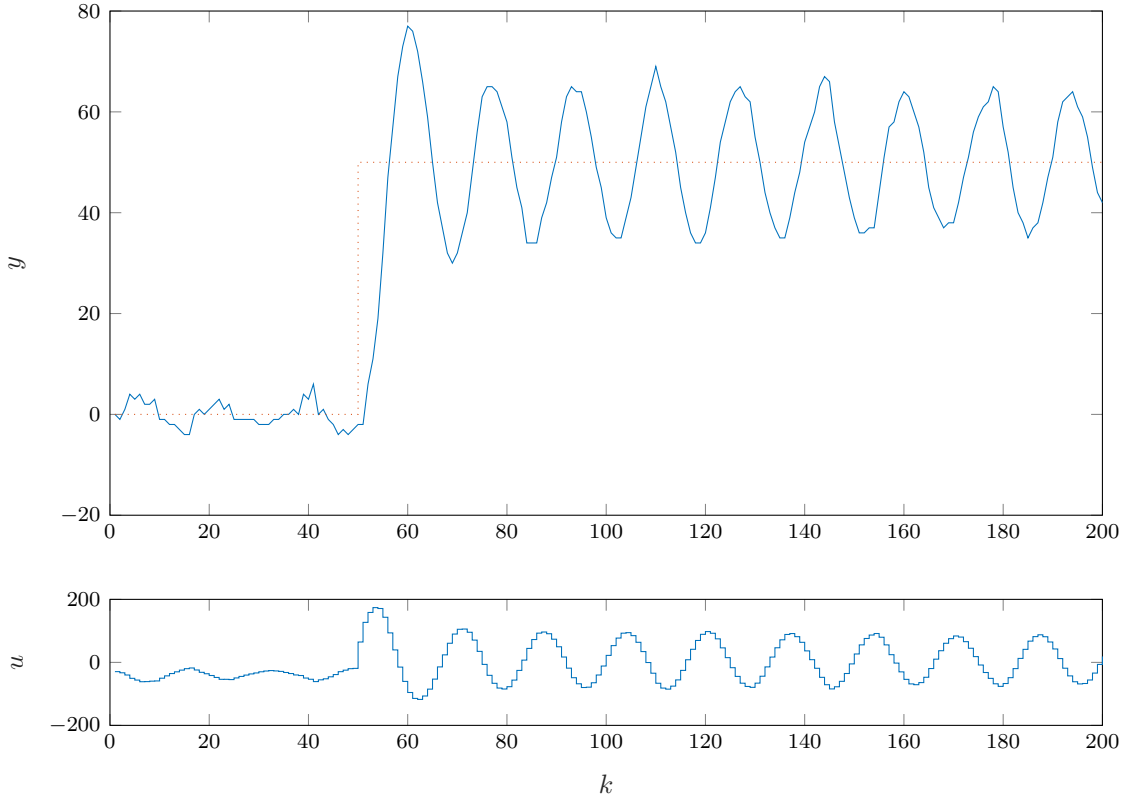
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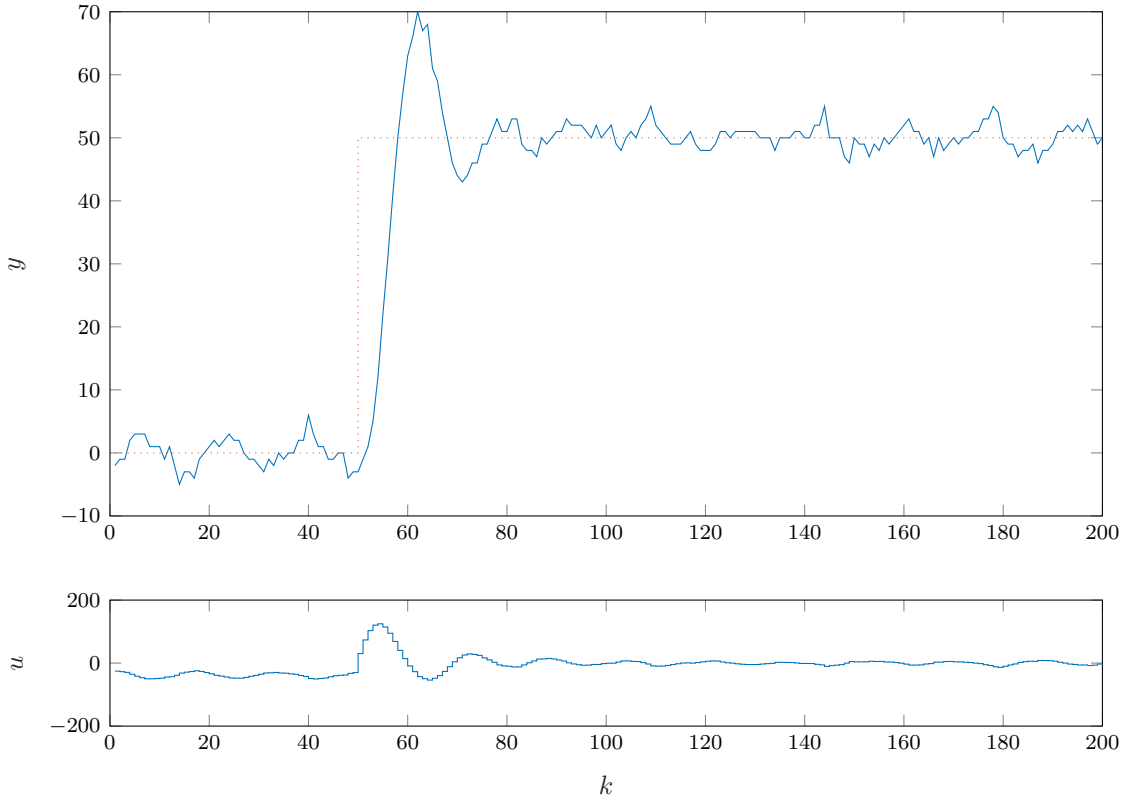
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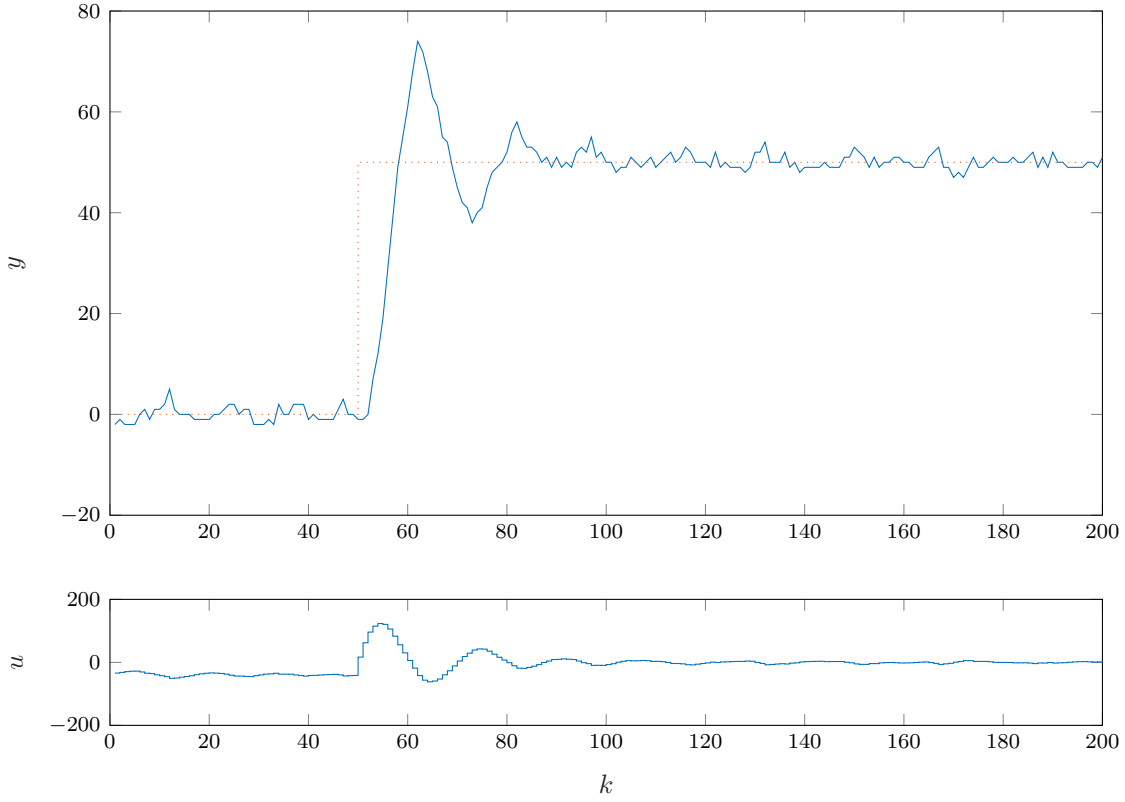
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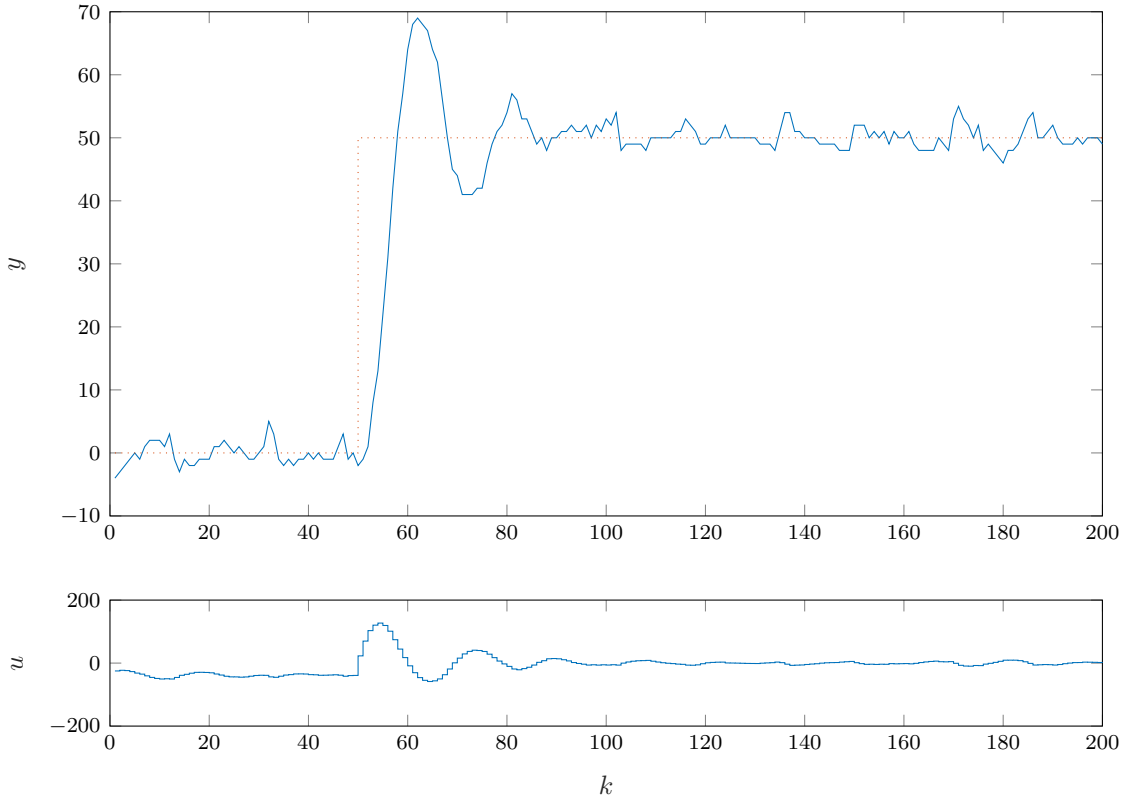
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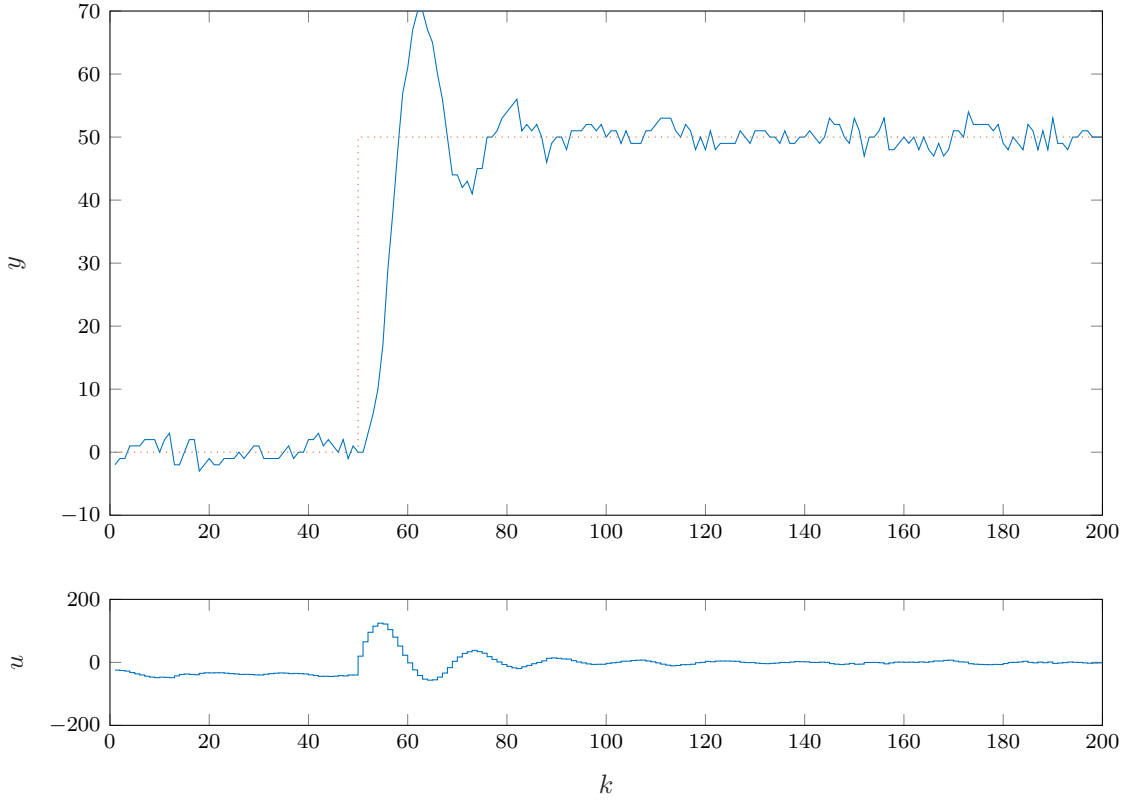
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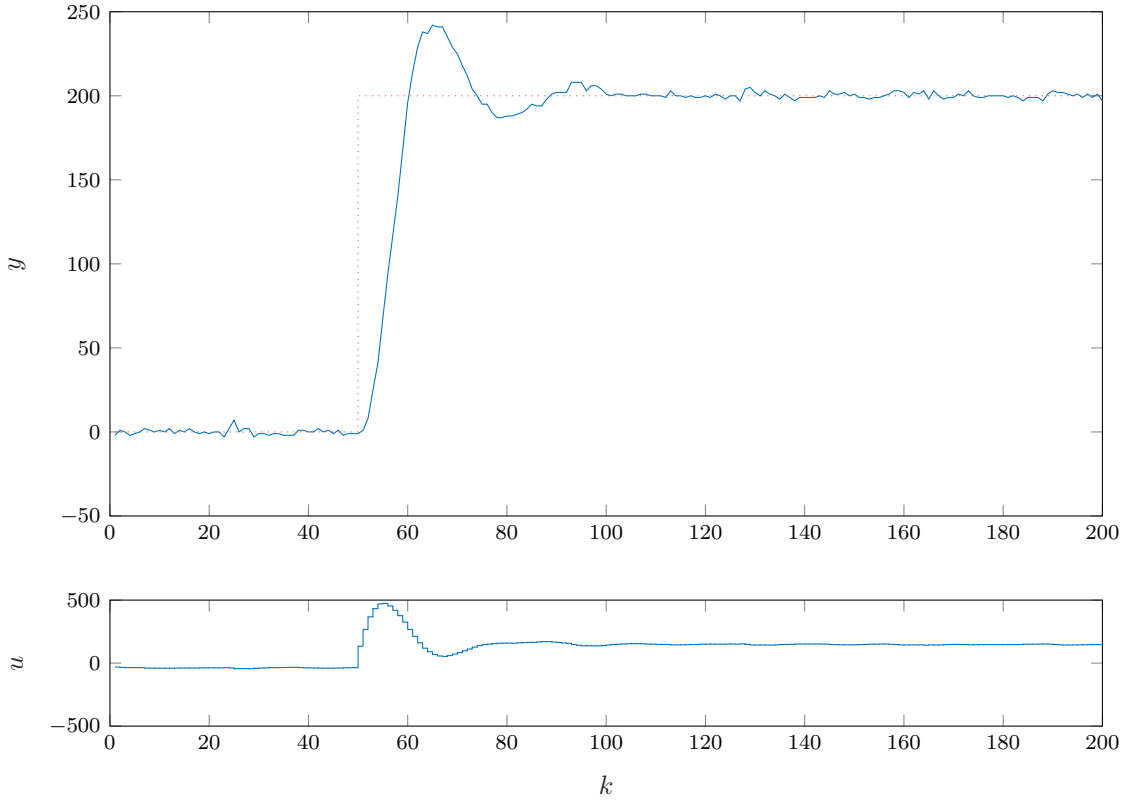
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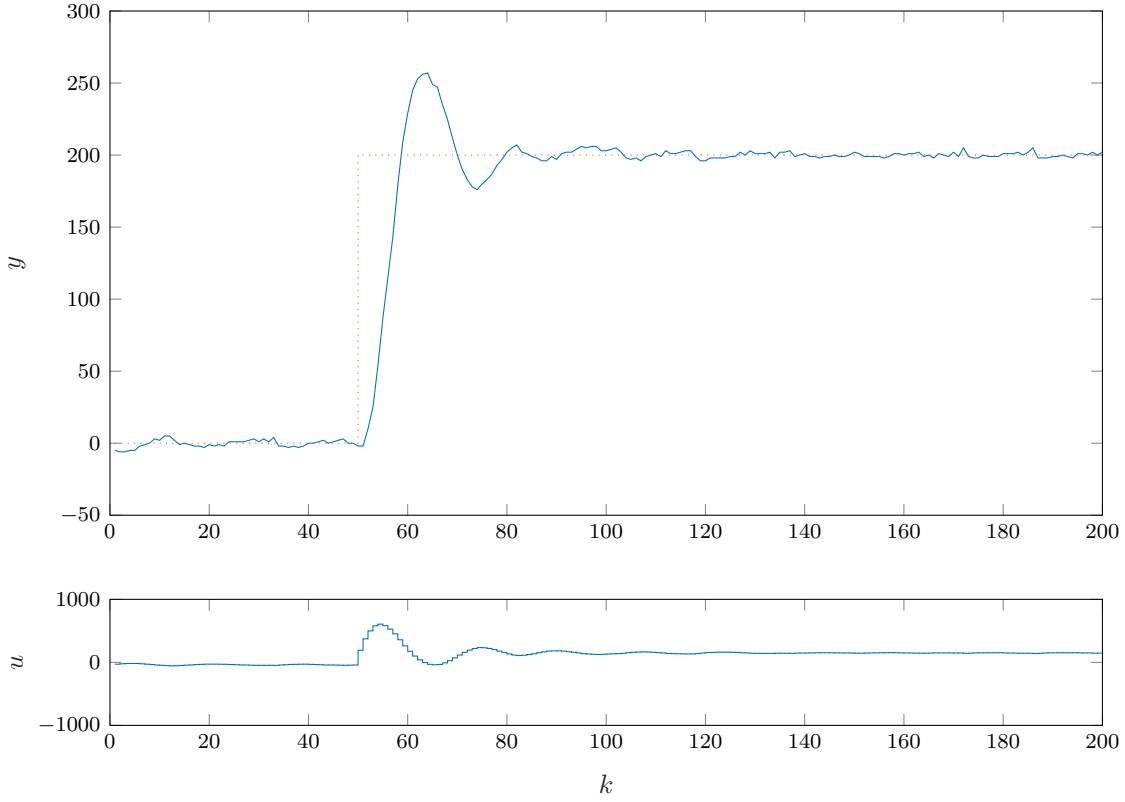
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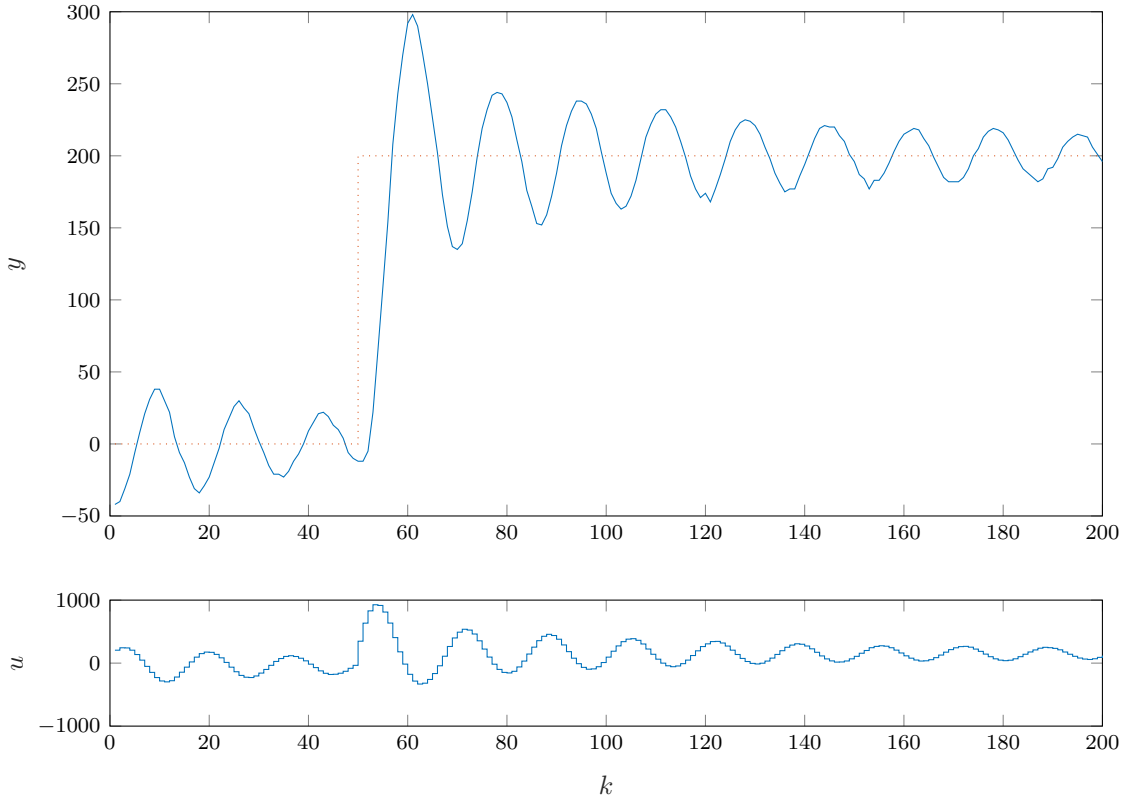
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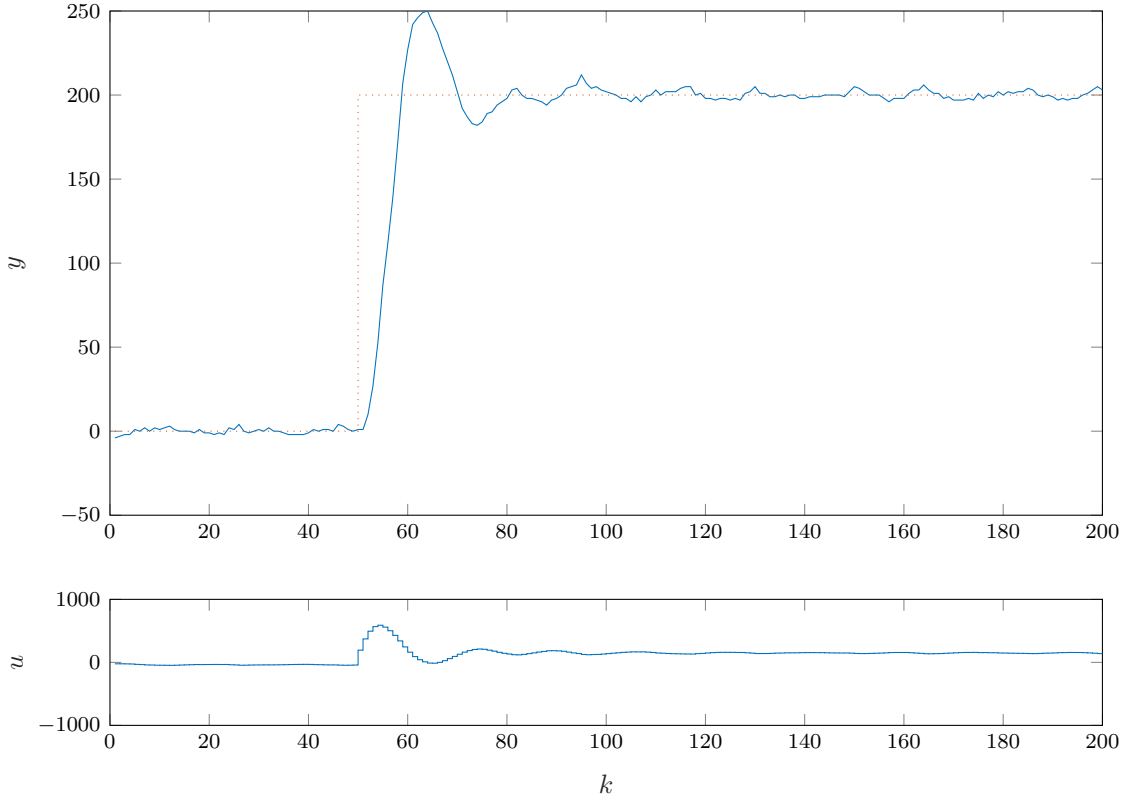
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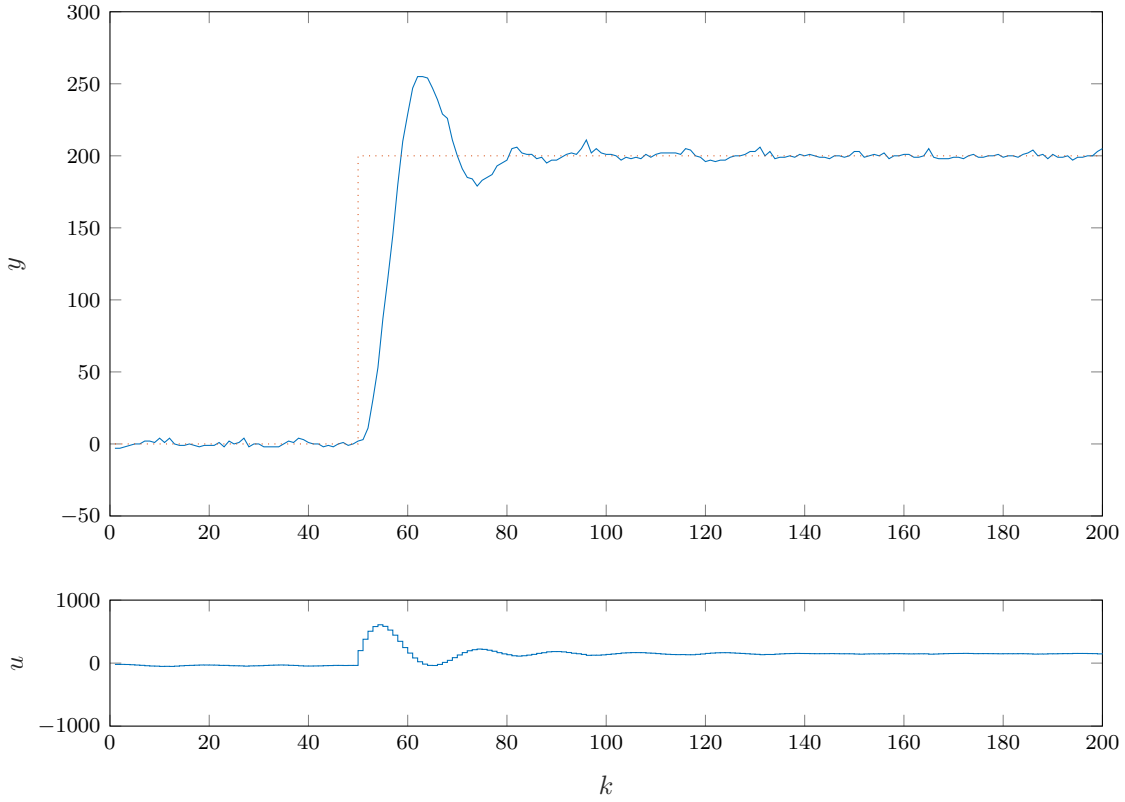
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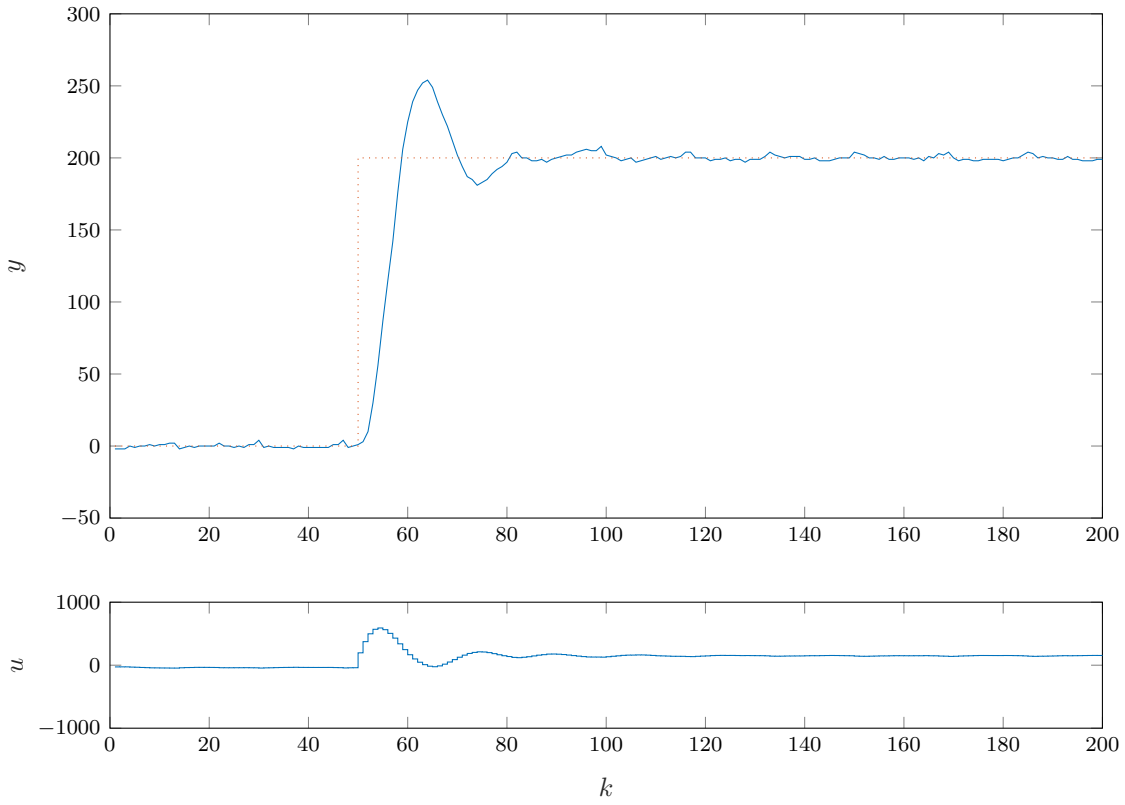
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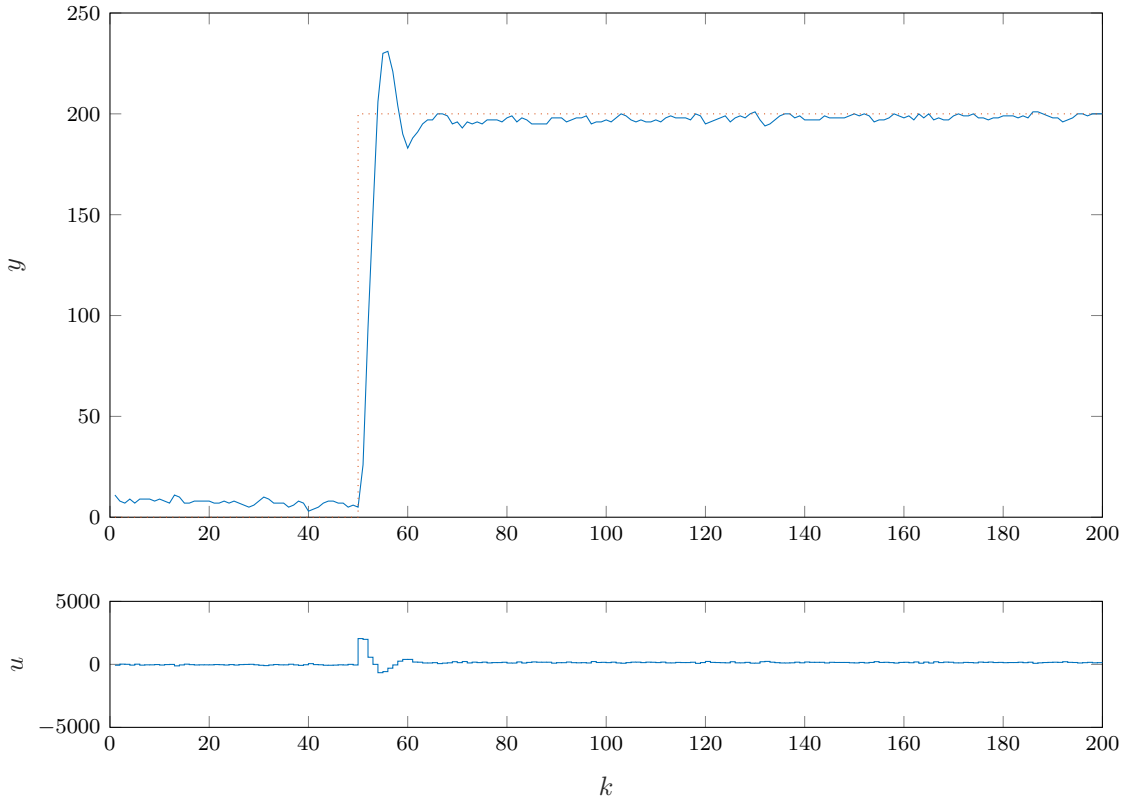
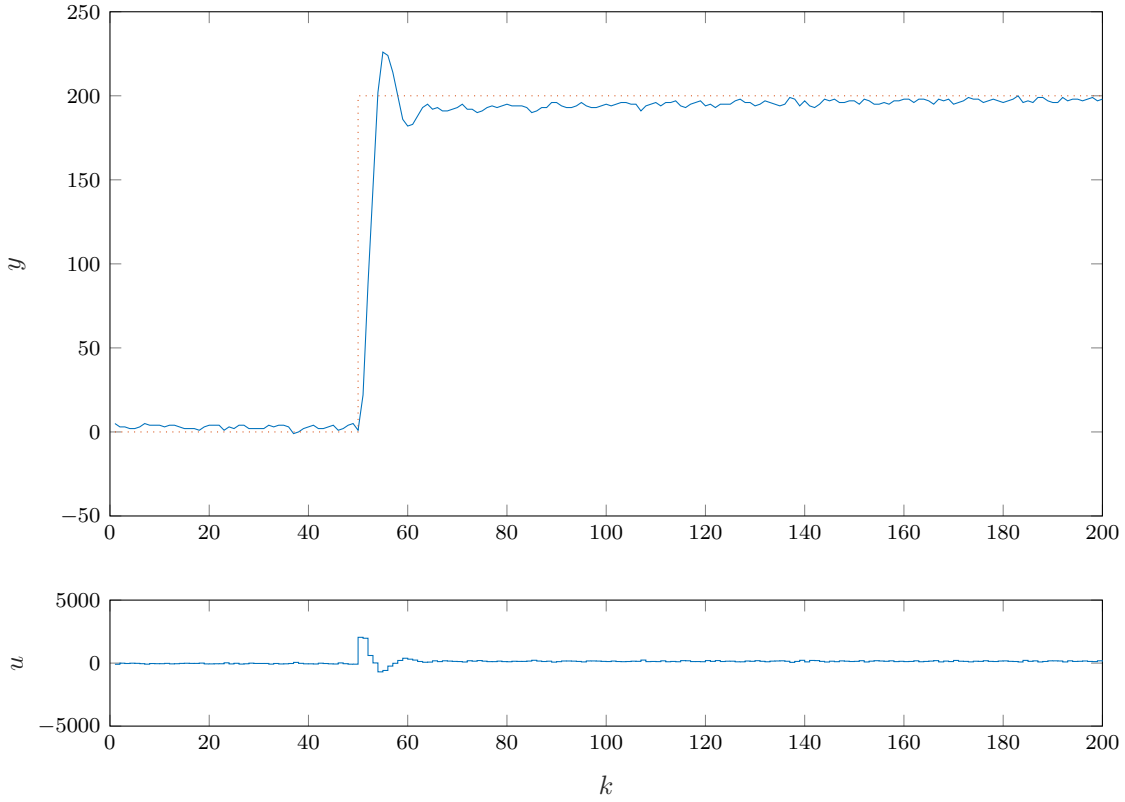
4. Porównanie najlepszych realizacji

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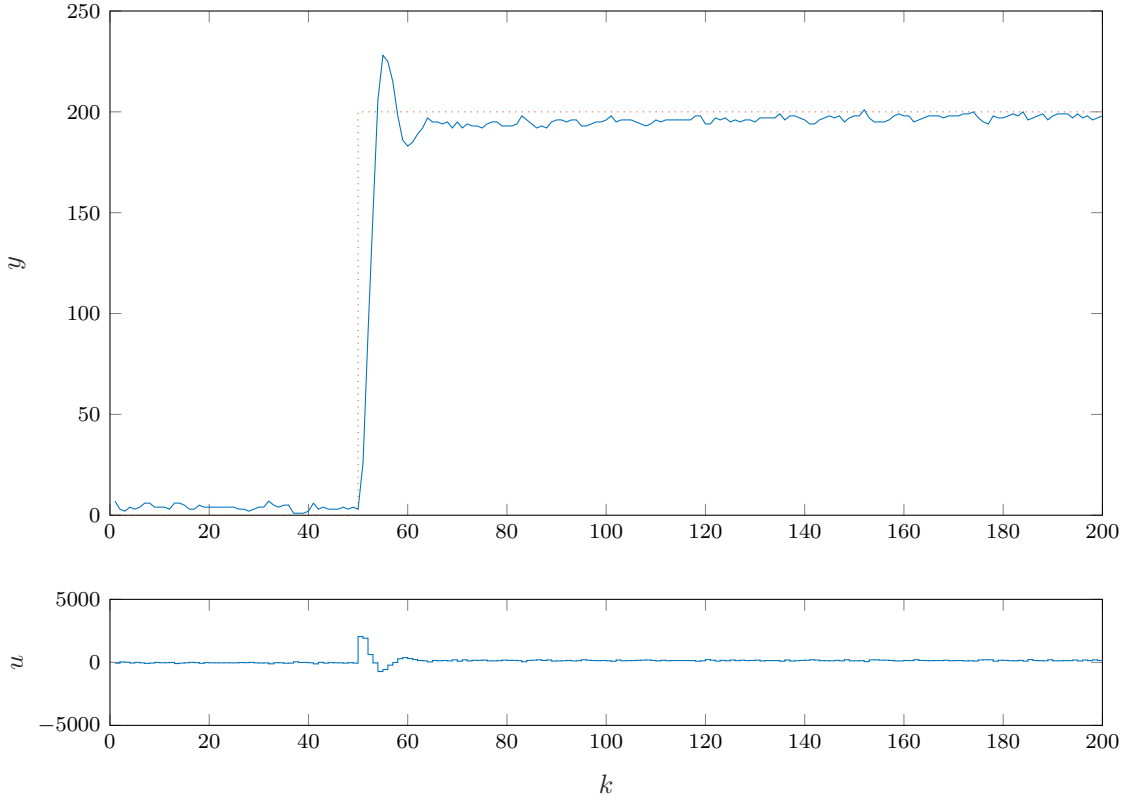
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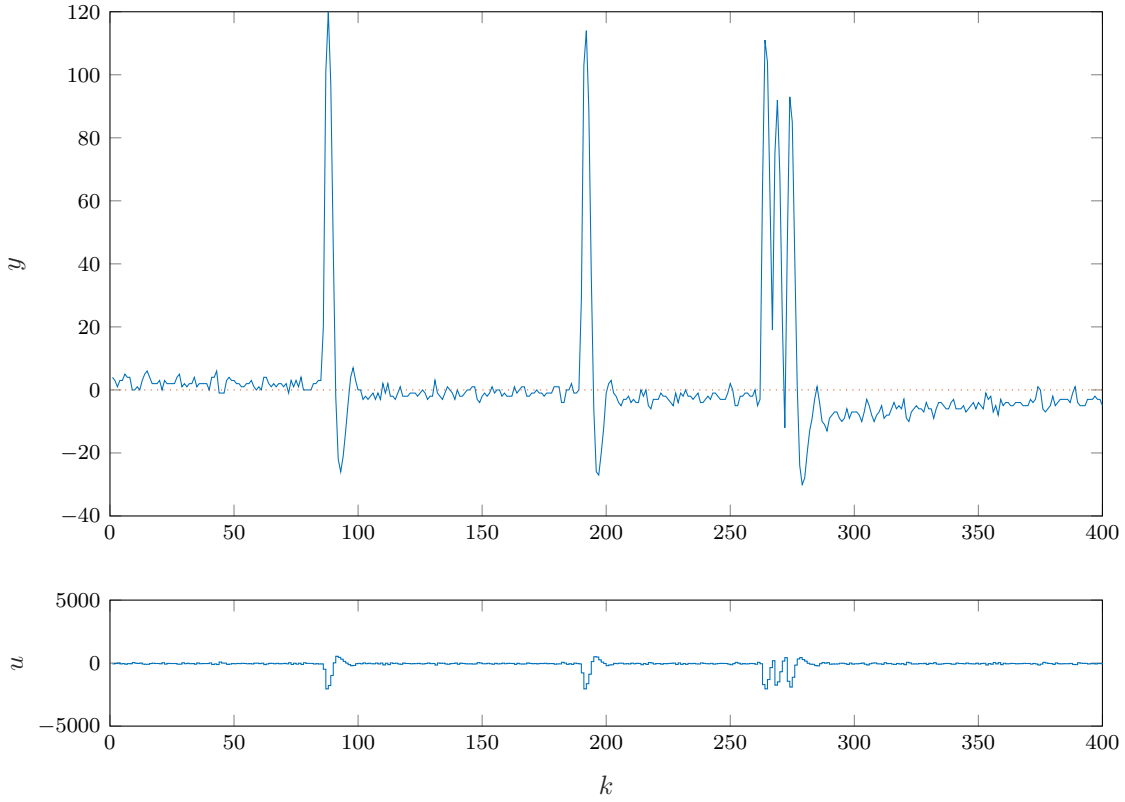

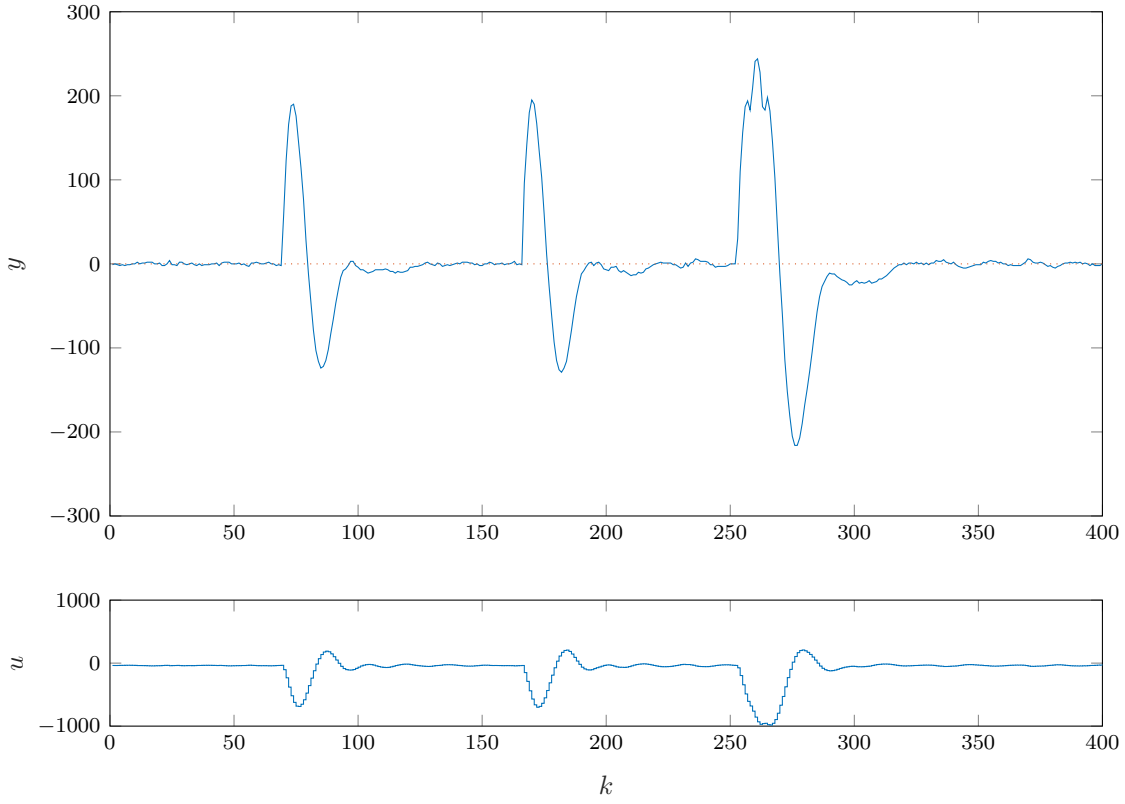

(4.1)

```
s = tf('s');
```

```
sys = K/((s*T1+1)*(s*T2+1))*exp(-Td*s);
% wartości T1, T2 oraz Td otrzymano podczas optymalizacji
% parametrów modelu wykorzystanego przy aproksymacji

pidtune(sys,'PID');
```