## HW 12 - Report

## General

| Total number of students | 23 |
| :--- | :--- |
| Number of submitted HW | 12 |
| Number of not submitted HW | 11 |
| Number of problems | $7+1$ |
| Average grade (without bonus for undergrads) | 83.41 |
| Standard deviation of grades | 17.96 |
| Including bonus for undergraduate students |  |
| Average grade | 95.65 |
| Standard deviation of grades | 19.93 |

## Individual problem breakdown

| Problem | P 7.32 | P 7.45 | P 7.50 | P 7.61 | P 7.80 | P 7.98 | P 7.111 | C 7.3 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average grade | 9.75 | 9.67 | 8.21 | 9.67 | 9.29 | 8.82 | 8.90 | 9.44 |
| Standard deviation of <br> grades | 0.87 | 0.89 | 2.33 | 0.86 | 1.34 | 1.42 | 2.20 | 1.21 |

## Grade distribution

HW 12


## Grade history



## Submission history



## Comparison with last year

HW12


## Comments

- Some students made calculation mistakes in P7.45 when computing the velocity $U$.
- Some students did not show how to get the core velocity expression in P7.50, which was based on geometrical consideration. Also, some students could not determine the wall angle.
- Some students made mistakes in integrating the equation of motion in P7.98 in order to find the distance travelled by the ball.
- $75 \%$ of undergraduate students who submitted the assignment solved the comprehensive problem C7.3; almost all who attempted could solve the problem correctly.

