

# Project 1 evaluation

## Pendulum:

- Did you measure  $T \pm \sigma(T)$  correctly? Combine with Chi2 and comments?
- Did you measure  $L \pm \sigma(L)$  correctly?
- Did you provide the individual T and L precisions/uncertainties on g?

## Ball on incline:

- $T \pm \sigma(T)$
  - $L \pm \sigma(L)$
- }  $\Rightarrow a \pm \sigma(a)$ , with Chi2 and comments.
- $\theta, \Delta\theta$  obtained correctly and
  - d, R and errors propagated correctly?

## Generally:

- **Correctly propagated uncertainties, showing individual contributions.**
- **Using Chi2 and its probability, whenever possible.**
- All necessary figures and tables there? 2-3 essential figures needed.
- Text enough to understand results? Clear and fitting captions?
- Comment on result, especially inconsistencies.
- Significant digits.

Collect results: Pendulum (T, L, g) and Ball on Incline (T, L, a,  $\theta$ ,  $\Delta\theta$ , d, R)

# Project 1 challenge

Project 1 consist of experiments and data analysis, which well resembles those in real life.

There are TONS of experience to gather from these!!!

For this reason, we give 1-2 extra points to persons/ groups, who manage the following:

- Pendulum measurement better than  $1/1000$  with full and correct data analysis and error propagation consistent with  $g$ .
- Ball on incline measurement better than  $1/100$  with full and correct data analysis and error propagation consistent with  $g$ .
- Comparisons, cross checks and ChiSquares throughout.

It is perfectly alright for a group NOT to do this, but continue in person, and just submit a personal addition.