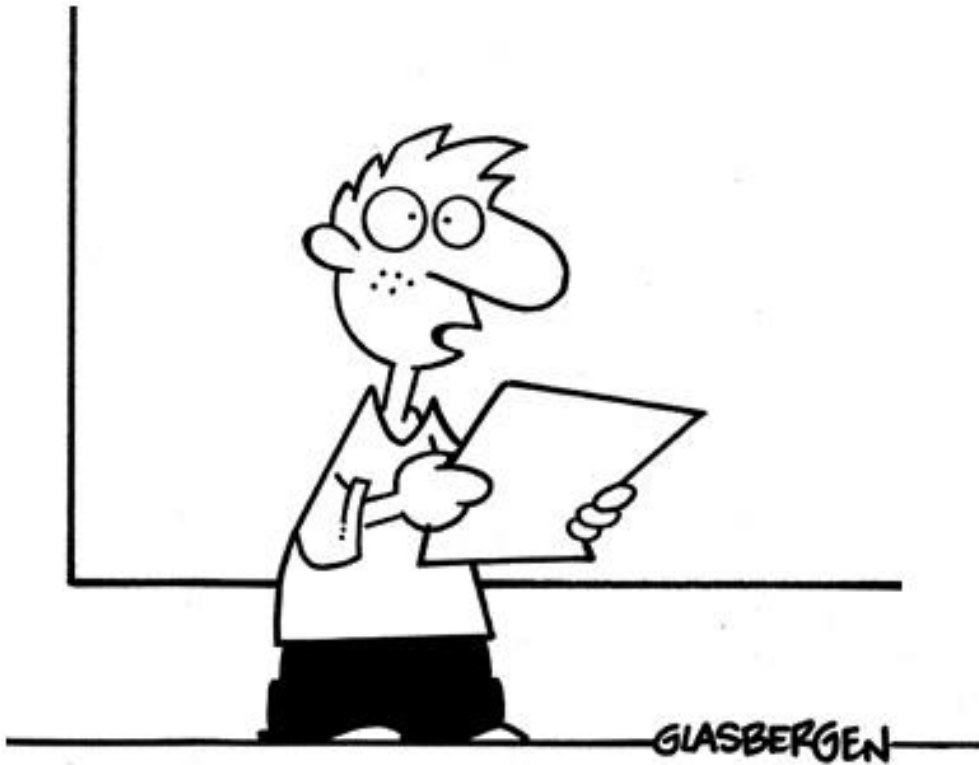


# ADVANCED TOPICS



# Advanced topics

- Text with **10pp** (max)
- Presentation **10** + 5' (slides in english)
- Groups with **3** people
- Free **topic**

# Advanced topics | possible topics 1

## **FUNDAMENTALS**

Theoretical limit for efficiency of silicon solar cells

Theoretical limit for efficiency of n junctions

Up- and down-conversion of photons

Luminescent concentration

# Advanced topics | possible topics 2

## **SOLAR CELL TECHNOLOGIES**

DSSC solar cells

Organic solar cells

Perovskite solar cells

Silver-less solar cells

Texturing solar cells

Inkjet contact printing

CZTS solar cells

Multijunction solar cells

Spectral splitting solar cells

Bifacial solar cells

Coloured solar cells

# Advanced topics | possible topics 3

## **SYSTEMS AND APPLICATIONS**

Cleaning of PV systems

Batteries for PV

Smart grids with PV generation

Recycling

Pico solar

PV impact on the electricity grid

Crowd funding for PV deployment

PV and climate change

# Advanced topics | possible topics 4

## **SYSTEMS AND APPLICATIONS**

Solar rover in the Antarctic

Agriphotovoltaics

Concentrated solar energy

Solar thermal or PV power heat pump

PV adopters

PV in Portugal

BIPV products

PV forecasting