

# CGRA assignment

Lab 1

Embedded Computer Architecture (5SIA0)

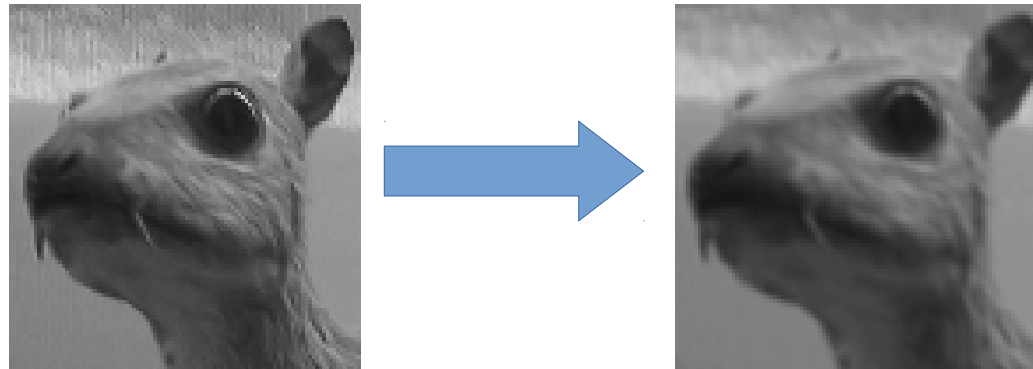
# Your assignment

- Detailed assignment information, forum and files can be found on the 5SIA0 Oncourse website.
- Report guidelines can be found in the assignment description on Oncourse.
- The deadline for this assignment will be:

**8 December 2016, 23:59**

# Your assignment

- You will get a naive implementation for a Gaussian blur convolution kernel.



- Your job is to make a trade-off between energy, area and performance

# Your assignment

- You can:
  - Modify the architecture:
    - Implement data-level parallelism
    - Implement instruction-level parallelism
    - Use bypassing
    - Use other nice hardware features
  - Modify the application:
    - There are algorithm level optimizations possible
    - To make use of the architecture changes

# Your assignment

- The assignment document will describe everything in more detail.
  - Additional documentation and files can be found on the Oncourse page for this course.
- Tools are available to make energy, area and performance estimates.



# Your assignment

- You can either work on our servers
- Or work at your own laptop
  - Virtual machine with Linux and required tools
  - Directly on your laptop, but Linux only
    - If you want to port it to Windows be our guest!

# One more thing...

- This is a research architecture...
  - Bugs will be present.
  - You will be among the very first users.
  - We will reward the best bug with a Walhalla beer card.
    - Bugs should be reproducible.
    - Report bugs on the bugs section on the forum

