Interactive
GPU-based Flow Simulation

Tobias M. Schneider, Simon Schütz
EPFL STI IGM ECPS
GPU-based Flow Simulation - Project

**Dream:** Interactive flow simulation for design

**Needed:**
- fast computers
- interactive input

**Simpler system:** Convection between two plates

**Wanted:** Interactive ‘stirring’ of the flow
GPU-based Flow Simulation – Tasks and Requirements

- Configure Drivers to compile/run CUDA/C++ code
- Modify CFD code for interactive input
- Design Graphical Output
- Touchscreen for input?