

## Effect of runaway electrons on the PFCs Modeling Group Dipartimento Energia during a plasma disruption Energy deposition (MJ/(m<sup>2</sup>))

- Problem: during plasma disruptions, electrons of the plasma can be accelerated up to relativistic energies (RAEs)
- Aim of the work:

POLITECNICO

"Galileo Ferraris"

**DI TORINO** 

- 1. Estimate of where the RAE beam will impact on the wall and for how long (disruption physics)
- 2. Calculate the RAE beam energy (physics of RAEs and atomic/nuclear physics of the materials involved)
- Analyze the thermal response of the wall (heat 3. transfer / thermal-hydraulics)
- <u>Prerequisites</u>: course of Nuclear fusion reactor physics



In collaboration with





Nuclear Engineering