



# Thermomechanical Analysis of a Picosatellite structure involving high-precision Attitude Determination and Control (Master Thesis/ Practical)

QUBE is a demonstration of quantum key distribution technology at picosatellite scale in orbit. Quantum key distribution will be used to safely exchange cryptographic keys. The aim of this mission is to enable quantum key experiments interfacing with an optical ground station.

## **Tasks**

- Understanding of thermomechanical processes in satellite busses
- Transfer and simulation with finite-element analysis software/libraries in (C/C++ or Java)
- Optimization of mechanical structures with special interest in attitude control and determination precision

## **Required Previous Knowledge**

Background in numerical methods, programming skills (C/C++ or Java)

## **Language**

German or English

## **Contact**

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