

Welcome in Bern



# Research at the Institute of Applied Physics

Electromagnetic radiation from X-rays to T-rays

- Generation and detection of „light“
- Interaction of radiation with matter
- Basic research in photonics with the aim of application in fundamental research in another area
- Close cooperation with research groups and industry (national and international)
- Partner in two national competence centers of research NCCRs (climate and quantum optics)

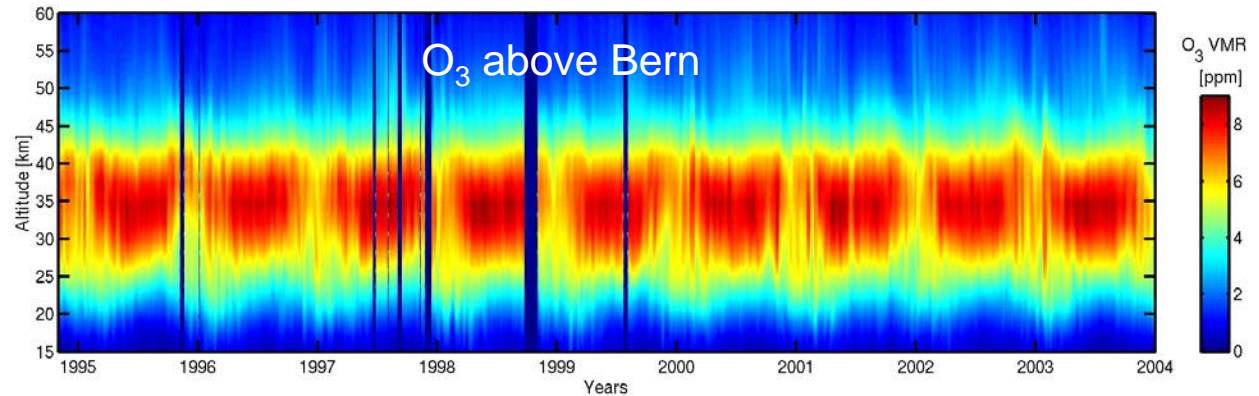
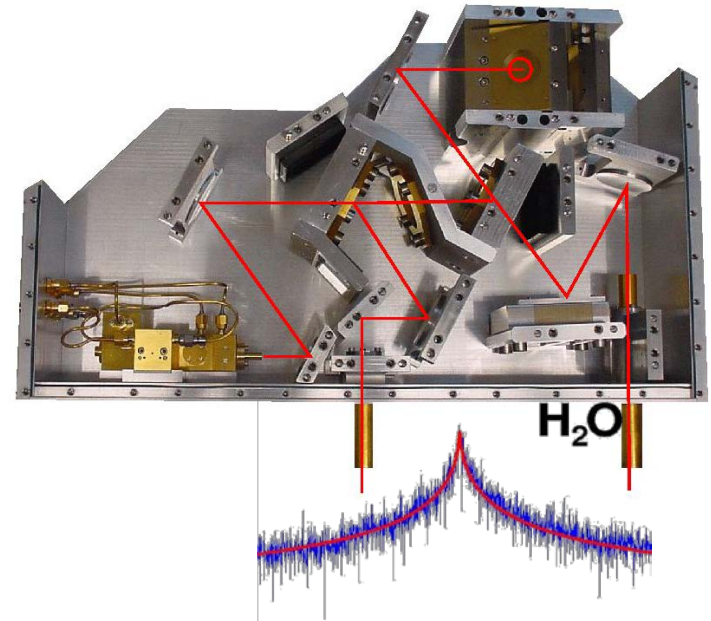
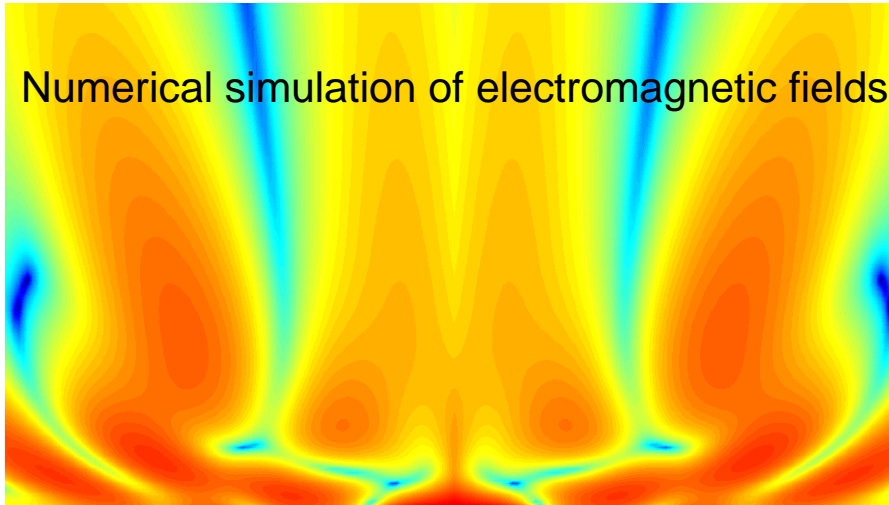
<http://www.iap.unibe.ch>

# Research divisions at IAP

- Biomedical photonics (Prof. Martin Frenz)
  - Medical optics
  - Soft Matter Physics
- Microwave physics (Prof. Nik Kämpfer)
  - Atmospheric research
  - Radiometry of the environment
  - THz-optics
- Laser physics (Prof. Thomas Feurer)
  - Solid state laser
  - X-ray laser
  - Laser material interaction
  - Ultra short pulses

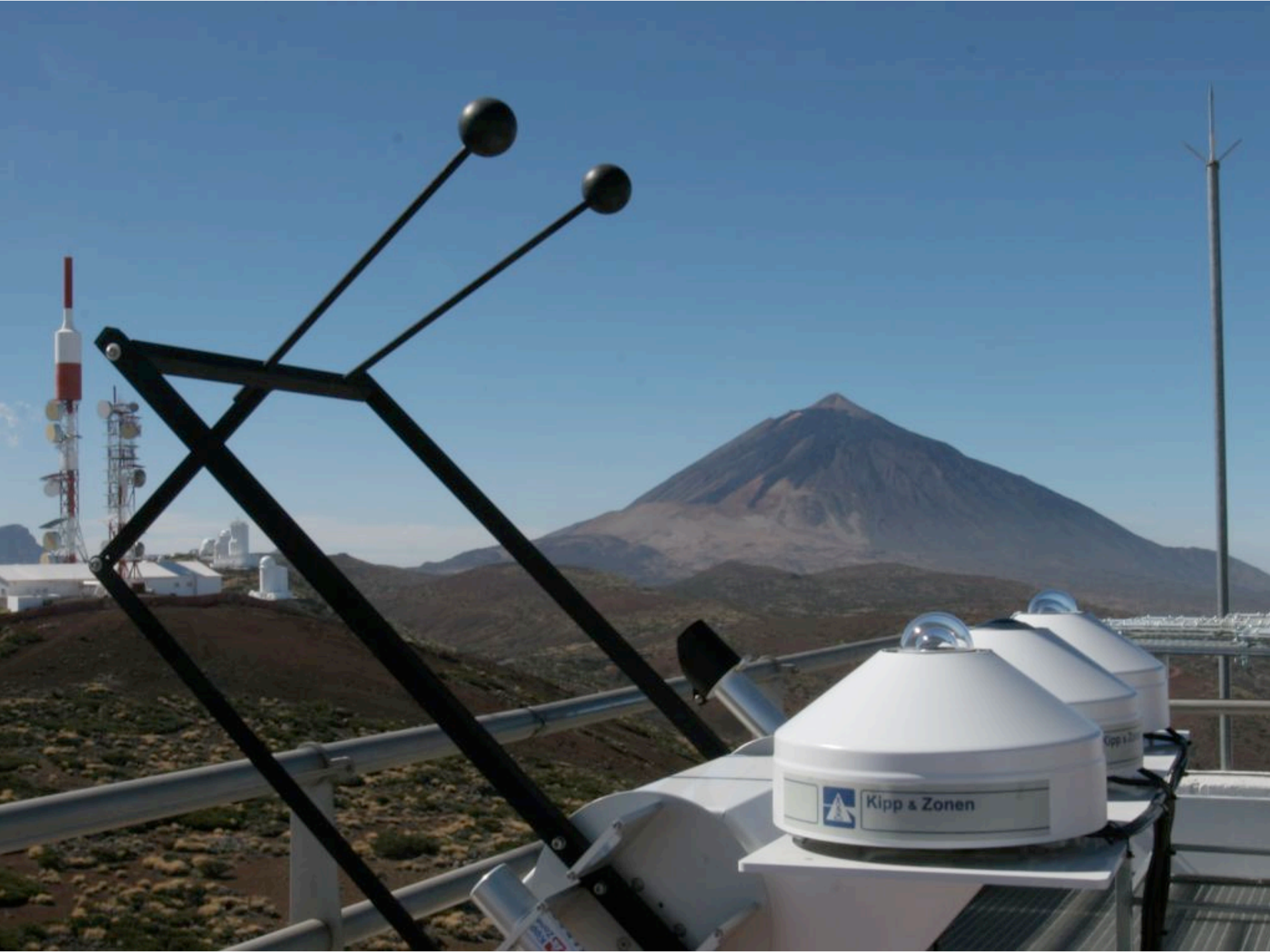
# Microwave physics

Microwave imaging at 94 GHz













NDACC needs a working group dedicated to H<sub>2</sub>O

## **The aim of this working group is to address questions like:**

- Inter-comparison of water vapor data obtained by different techniques (FTIR, Lidar, balloon, microwave, satellites,...)
- Specifications for frostpoint or Flash-sondes
- Archiving of "historic data" from balloons in NDACC data base
- Theory: what is important to measure in the frame of the NDACC in order to understand water vapor effects
- Campaigns to measure water vapor
- New stations performing long-term water vapor measurements