

# Geodesy

## Specialization Project and Master thesis

Contact Hossein Nahavandchi to further discuss about the projects. Some titles are given below. Each of titles may include several projects:

### **Titles:**

#### **GNSS:**

- GNSS ground based data processing and analysis for climate applications (for example GNSS-derived water vapor time series)
- Spaceborne GNSS reflectometry observations for land/ocean applications (for example wind retrieval, and soil moisture)
- Analysis of ionospheric/tropospheric effects on GNSS signals (Permanent GNSS Stations)
- General topics within GNSS such as accuracy/integrity improvement of positioning (different practical scenarios/issues)

#### **GRACE (Gravity modelling):**

- GRACE time series analysis for nationwide water storage analysis
- GRACE time series analysis for Greenland ice mass balance
- GRACE time series analysis for nationwide soil moisture analysis
- General topics within satellite gravity modelling

#### **SAR and InSAR (?):**

- Deformation/displacement detection using Interferometric SAR techniques

#### **DATA preparation:**

- Collocation of different satellite/ground based geodetic data
- Homogenization of geodetic time series

Geodesy topics chosen by students can also be discussed.

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