EGSIEM

EGSIEM Kick Off Meeting
University of Bern
January 13. – 14. 2015

UNIVERSITÄT BERN
UNIVERSITÉ DU LUXEMBOURG
GFZ Helmholtz Centre Potsdam
TU Graz Graz University of Technology
Leibniz Universität Hannover
cnes
DLR
géode&cie
Horizon2020

Welcome

Purpose of the meeting

- Familiarize with the project
  - Administrative issues
  - Scientific tasks
- Where are we at the moment?
- Identify what is needed to initiate the planned actions
- Get prepared for upcoming Deliverables / Milestones
- Goal: Everybody knows what is expected to be done until the next meeting

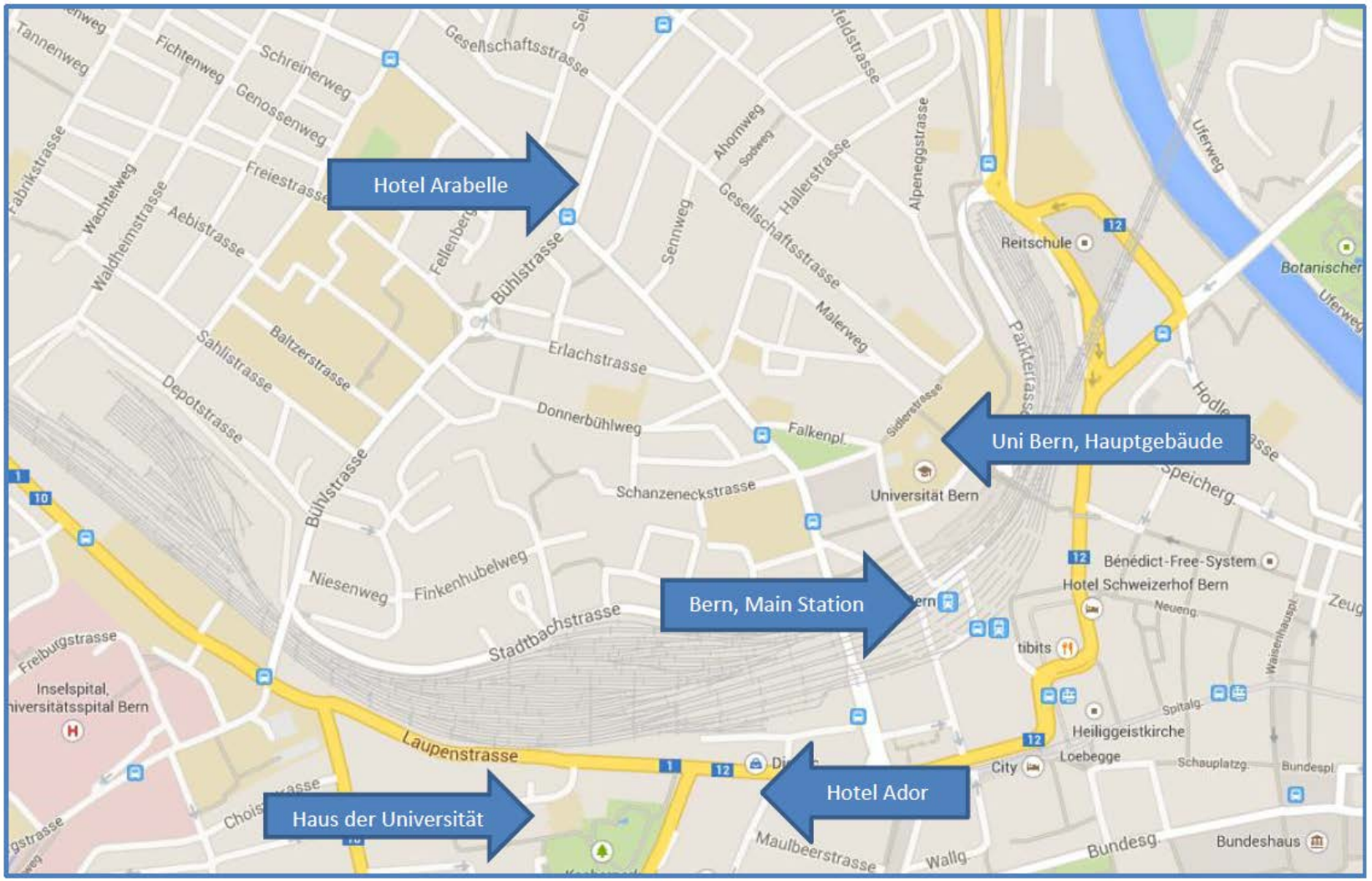
EGSIEM | **Meeting Agenda** | Horizon2020

AGENDA Day 1 (Tuesday, 13. January)			
Item	**Time**	**Actionee**	**Topic**
1	08:45-08:55	Jäggi/Leumann	Welcome and Purpose of Meeting
2	09:00-09:45	All	Introduction of all Participants
3	09:50-10:15	Jäggi	EGSIEM Project overview & Advisory Board Introduction
	10:20 - 10:55	**All**	**Coffee Break and Group Photo**
4	11:00-11:30	Cann-Guthauser	Administrative Overview • Legal Framework – Consortium & Grant Agreements • Project Management Structure • Reporting Requirements • Budget
5	11:35-11:55	Jäggi	Upcoming Deliverables • Management Guidelines (M02) • Processing Standards and Models (M02) • Concept of NRT Service (M03) • EGSIEM Project Website (M03) • Reference Frame Product Report (M10)
	12:00 - 13:15	**All**	**Lunch Break**
6	13:20-14:00	Mayer-Gürr	WP2: Gravity Field Analysis *Processing standards* • Collection of used background models • Timeline, Output: .doc of recommendations *Improved processing tools* • (UBERN, UL, GFZ, TUG, CNES, 2 slides, 3 min each) • Current differences in processing compared to other groups • Planned further improvements • What auxillary products are needed by the processing groups (orbits, ...)? *End-to-End simulator* • Generation of noise of instruments and background models • Setup E2E simulator

EGSIEM | **Meeting Agenda** | Horizon2020

7	14:05-14:45	Weigelt	WP3: Integration of Complementary Data • Reference Frame (GNSS, SLR, NRT) • Validation (GNSS, OBP, Altimetry) • Complimentary hydrological data (GIA, historic flood situations)
8	14:50-15:30	Meyer	WP4: Scientific Service • Combination of monthly gravity models (UBERN) • Definition and provision of user-friendly Level-3 products (GFZ, UL) • Validation of gravity field solutions (UBERN, GFZ, UL)
	15:30 - 15:55	**All**	**Coffee Break**
9	16:00-16:40	Flechtner	WP5: NRT and Regional Service *Introduction (Flechtner)* • WP5 Background (Limitations of GRACE monthly SDS solutions) and Objectives • NRT Requirements/Interfaces (Data and Models needed, List of historical flood data incl. Test run with ZKI) • Timeline, Expected WP5 Output (area mean values for all selected areas of interest, Documents etc.) *NRT processing @ GFZ (Gruber)* • RBF approach (current status and planned work in EGSIEM (s/w update, global/regional solutions, internal (GFZ)/external (ULUX) validation, feedback from discussions with TUG) *NRT processing @ TUG (Mayer-Gürr)* • Kalman approach (topics see GFZ)
10	16:45-17:10	All	Review of Day and of minutes
	17:15	**All**	**Meeting Adjourns until Wednesday**
	19:00	**All**	**Dinner at Haus der Universität**

Logistics


Hotel Arabelle
Uni Bern, Hauptgebäude
Bern, Main Station
Haus der Universität
Hotel Ador
Tannenweg
Fichtenweg
Schreinerweg
Genossenweg
Gesellschaftsstrasse
Ahornweg
Hallerstrasse
Alpeneggstrasse
Uferweg
Reitschule
Botanischer
Waldheimstrasse
Aebistrasse
Freiestrasse
Bühlstrasse
Sennweg
Gesellschaftsstrasse
Malerweg
Baltzerstrasse
Sahlistrasse
Depotstrasse
Erlachstrasse
Donnerbühlweg
Falkenpl.
Schanzeneckstrasse
Universität Bern
Speicherg.
Bühlstrasse
Niesenweg
Finkenhubelweg
Stadtbachstrasse
Bénédict-Free-System
Hotel Schweizerhof Bern
tibits
Freiburgstrasse
Inselspital,
Laupenstrasse
Heiliggeistkirche
Loebegge
City
Schauplatzg.
Bundespl.
Maulbeerstrasse
Wallg.
Bundesg.
Bundeshaus

Lunch

Dinner at "Haus der Universität"

Internet access

Internet access is possible for external people at the University of Bern via:

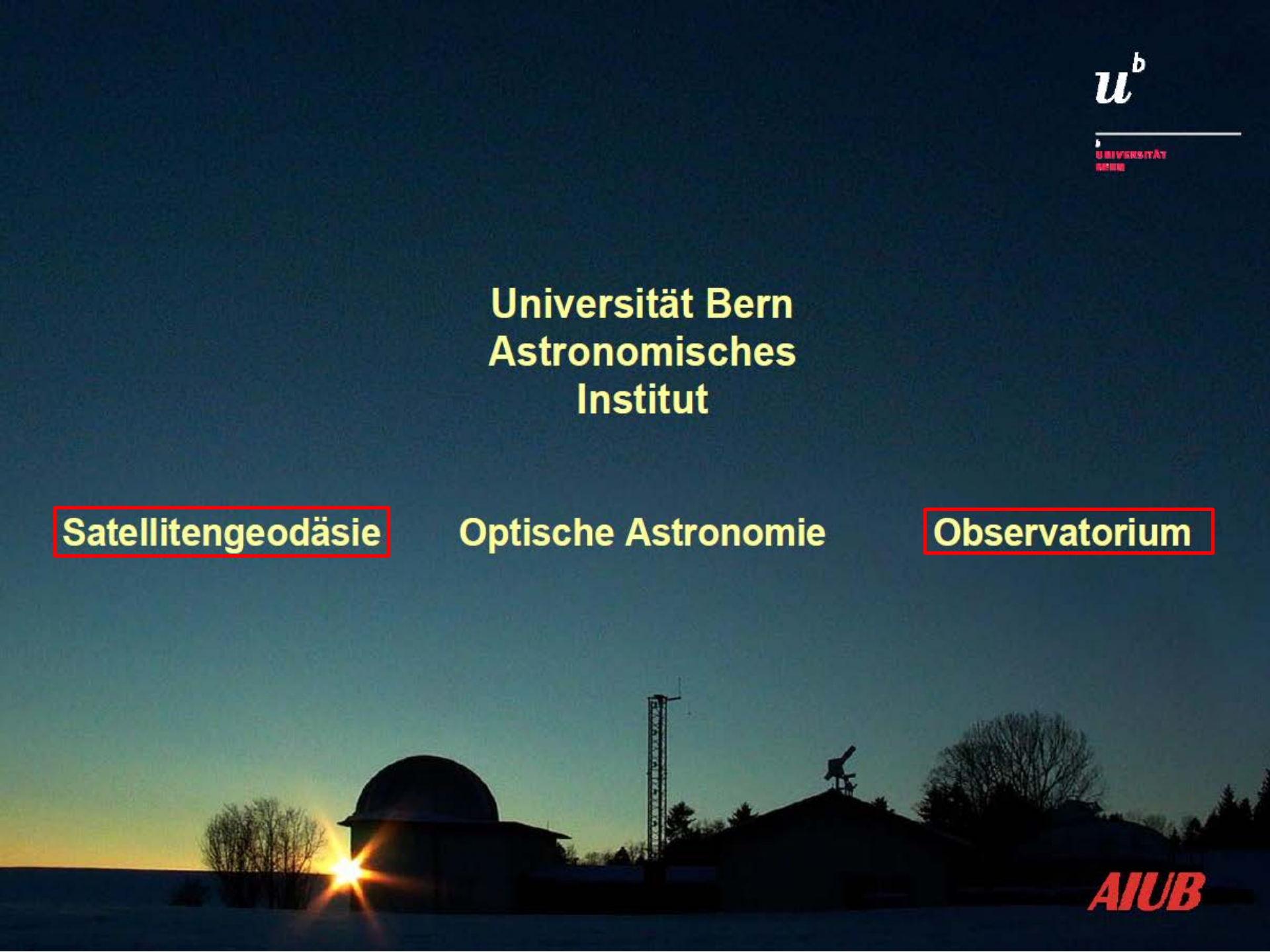
- **eduroam**
  for academic people

- **public-unibe**
  with an access-ticket
  (we have to register who has used which ticket-number)

Touristical information

Please consult the maps from Bern Tourismus

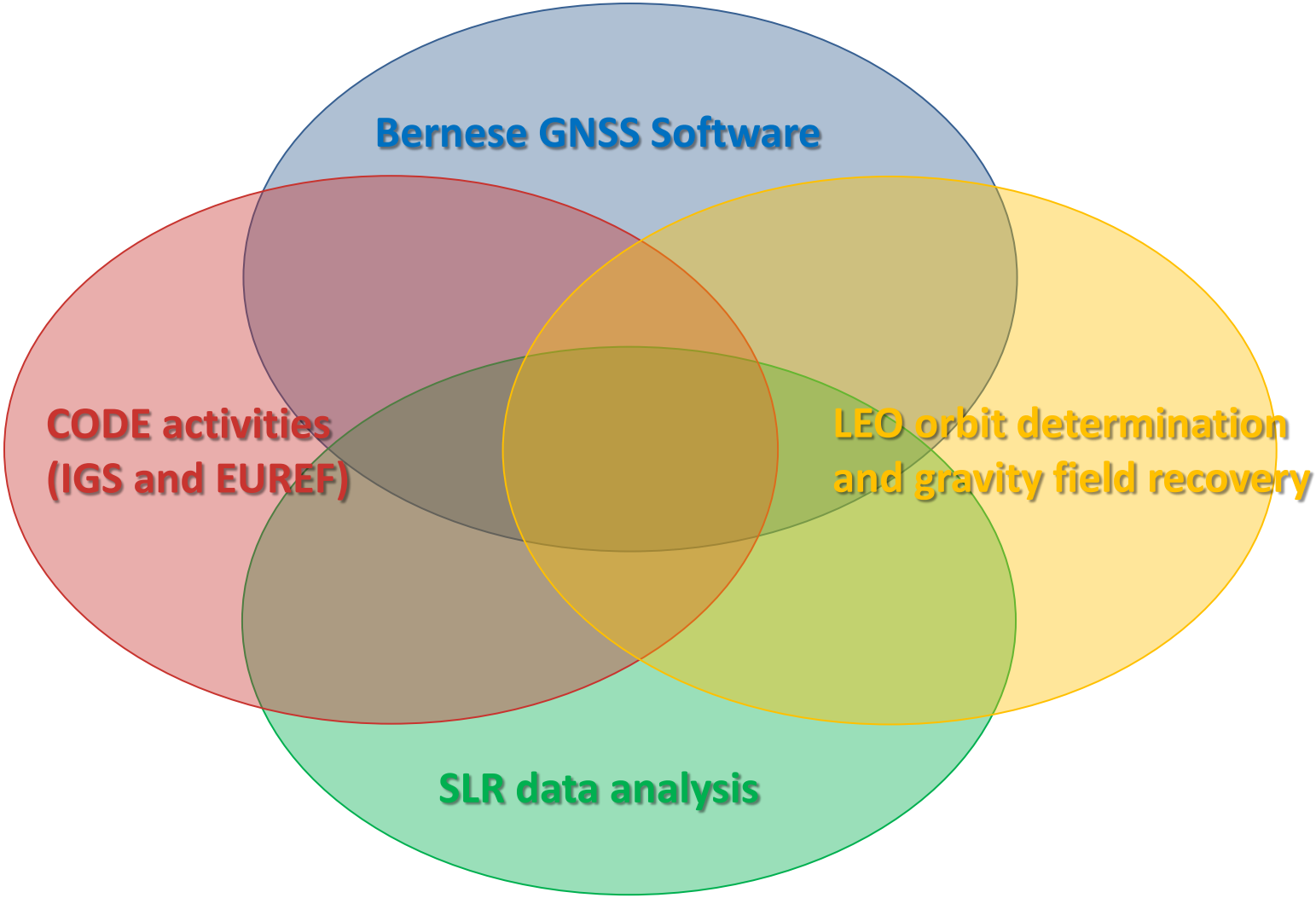
Introduction of all Participants


Universität Bern
Astronomisches
Institut
Satellitengeodäsie
Optische Astronomie
Observatorium
AIUB

Zimmerwald Observatory

- **Optical Observations** (CCD)
  space debris, asteroids, comets
- **Satellite Laser Ranging** (SLR)
  geodetic, GNSS, other satellites
- **GNSS receivers** (operated by swisstopo)
- **Earth tide gravimeter** (operated by ETH Zürich
- **Several instruments for atmosphere research** (operated by IAP Bern

Satellite Geodesy at AIUB



Bernese GNSS Software

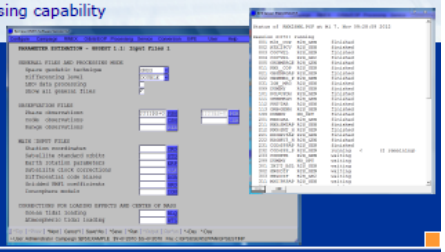
Bernese GNSS Software Version 5.2

The Bernese GNSS Software, Version 5.2, continues in the tradition of its predecessors as a high performance, high accuracy, and highly flexible reference GPS/GLONASS (GNSS) post-processing package. State-of-the-art modeling, detailed control over all relevant processing options, powerful tools for automatization, the adherence to up-to-date, internationally adopted standards, and the inherent flexibility due to a highly modular design are characteristics of the Bernese GNSS Software.

Features and Highlights

- Available on UNIX/Linux, Mac, and Windows platforms
- **User-friendly GUI**
- Built-in HTML-based **help system**
- Multi-session parallel processing for **reprocessing** activities
- **Ready-to-use BPE** examples for different applications:
  - PPP (basic and advanced versions)
  - RINEX-to-SINEX (double-difference network processing)
  - Clock determination (zero-difference network processing)
  - LEO precise orbit determination based on GPS-data
  - SLR validation of GNSS or LEO orbits

  All examples are designed for **combined GPS/GLONASS** processing. Some of them are prepared for an **hourly processing scheme.**
- Program for automated coordinate **time series analysis** (FODITS)
- **Ambiguity resolution** also for GLONASS
- Improved troposphere and ionosphere modeling
- Estimation of **scaling factors** for crustal deformation models (grids)
- Real kinematic analysis capability
- **IERS 2010** conventions compliance
- Support of GNSS-specific receiver antenna models
- Full verification of serial number for individually calibrated antennas
- Galileo processing capability



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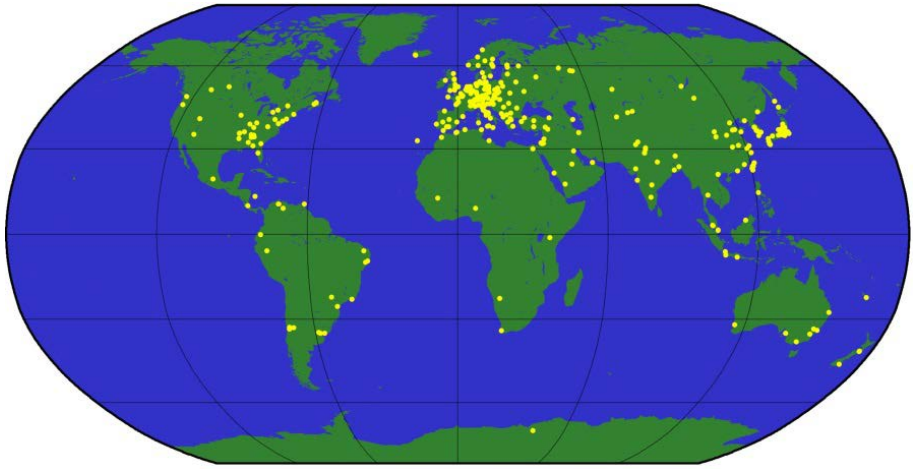

The Bernese GNSS Software developed at AIUB is the fundamental analysis tool for all GNSS-related activities at AIUB.

The software is continuously further developed and meanwhile also used by more than 600 institutions worldwide.

Introduction of all Participants