

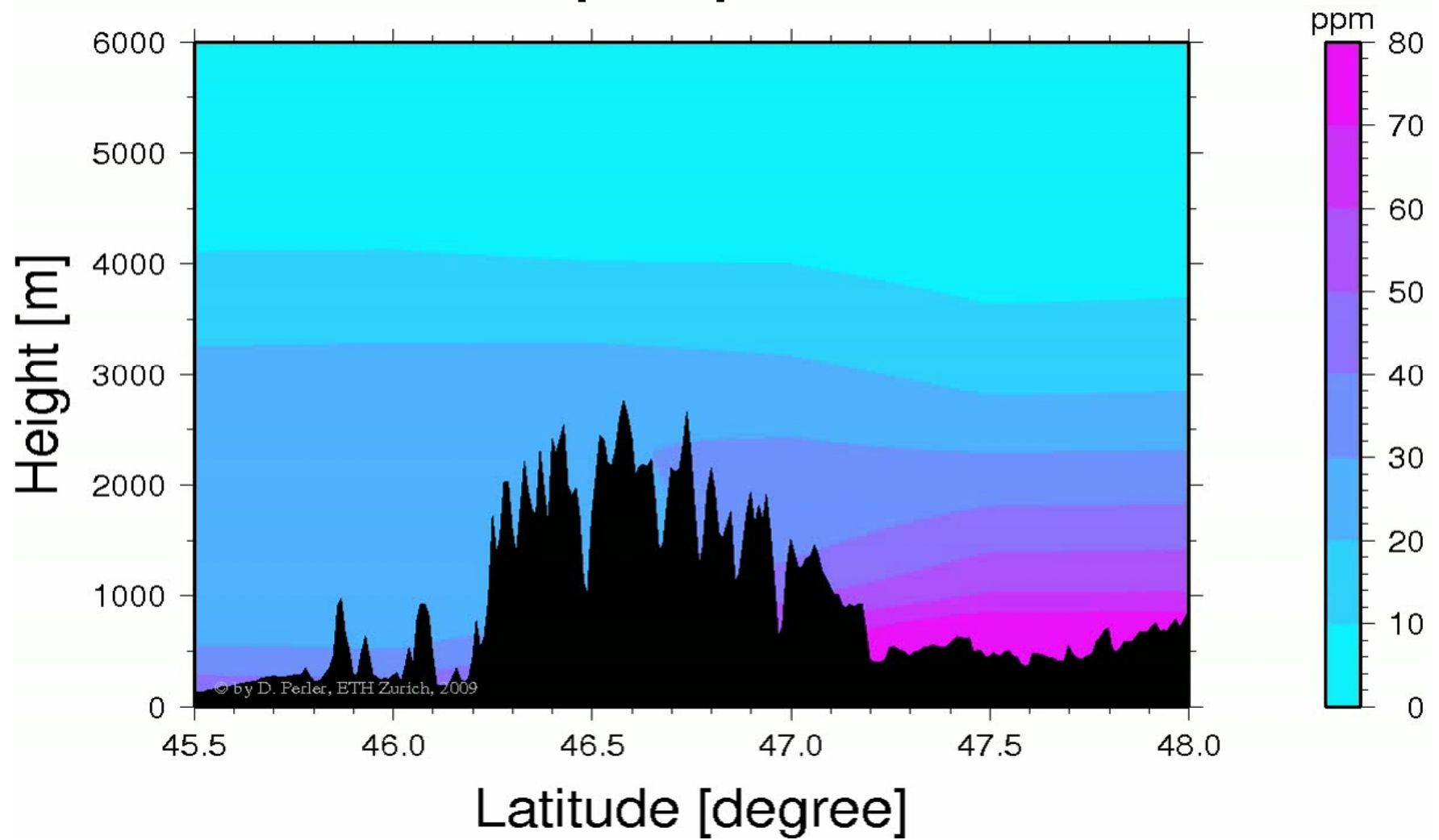
SGK / ÖGK Themen

Troposphäre / Refraktion

GNSS:

Monitoring, Seismologie, Reprozessing,
Massenverlagerungen

Troposphäre

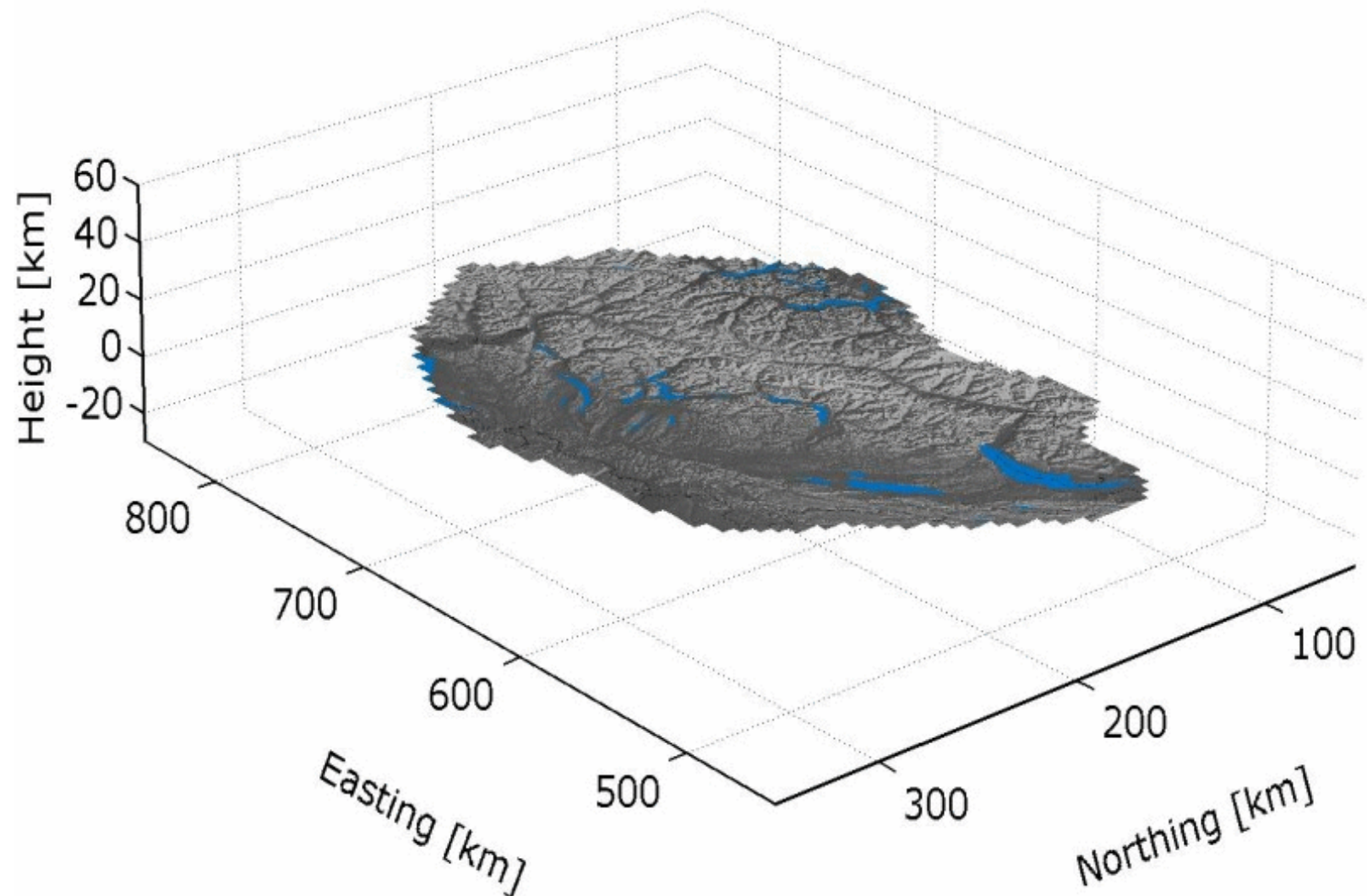


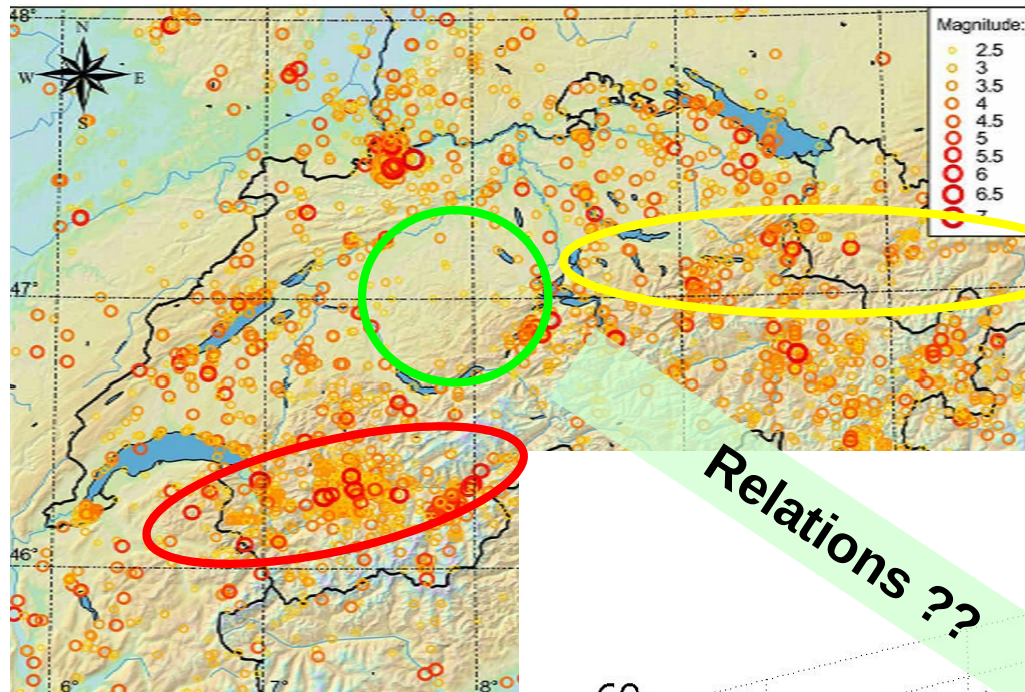
Randa (RAND)

Kretz, Villiger, Limpach, Moore, 2011



Die Schweiz in Bewegung $0.0 \cdot 10^6$ Years





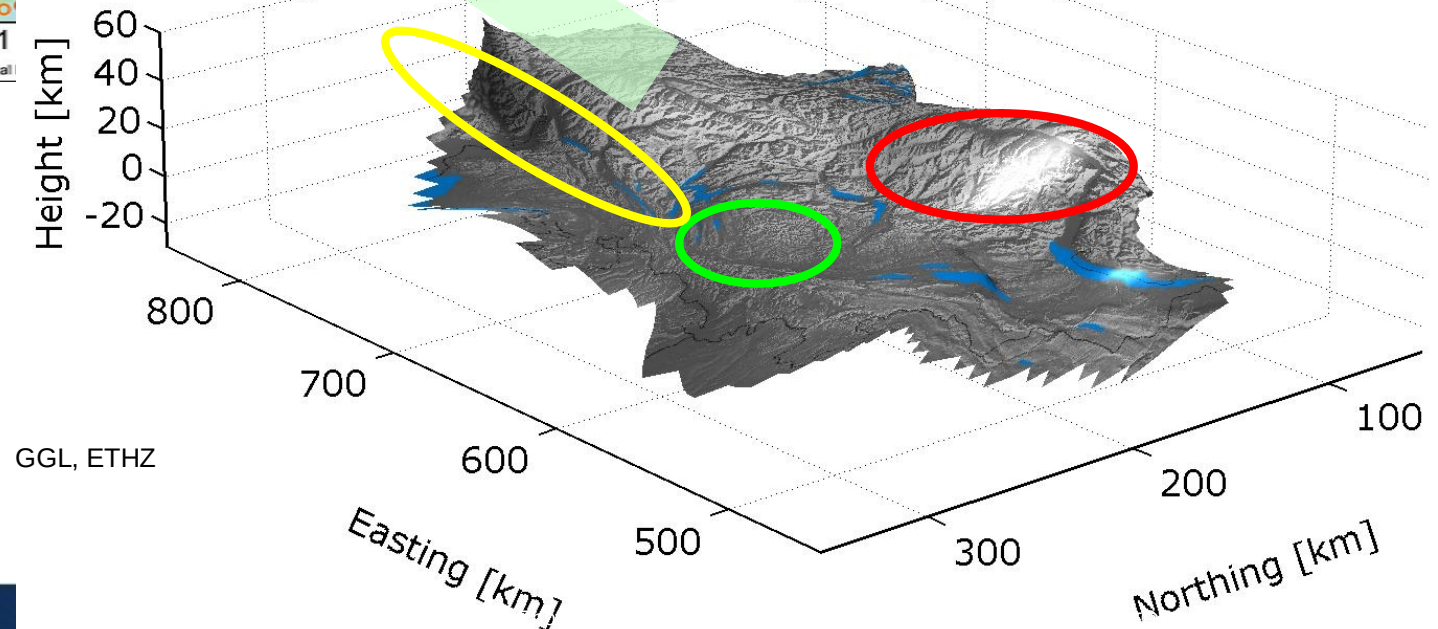
Earthquakes in Switzerland 250-2001

From ECOS - Earthquake Catalog of Switzerland. (c) Swiss Seismological

Deformation und Seismizität

 $30.0 \cdot 10^6$ Years

Relations ??



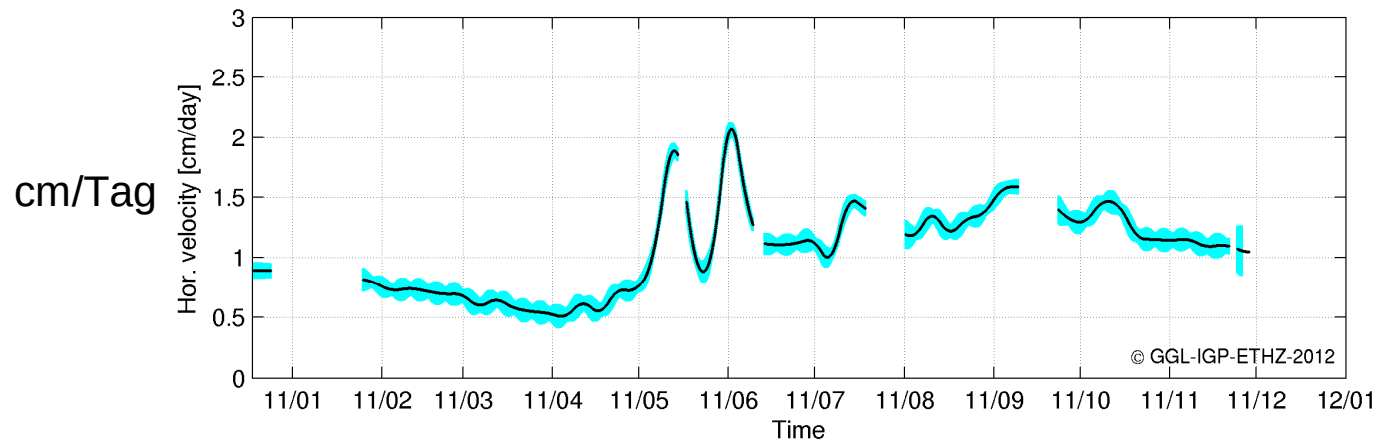
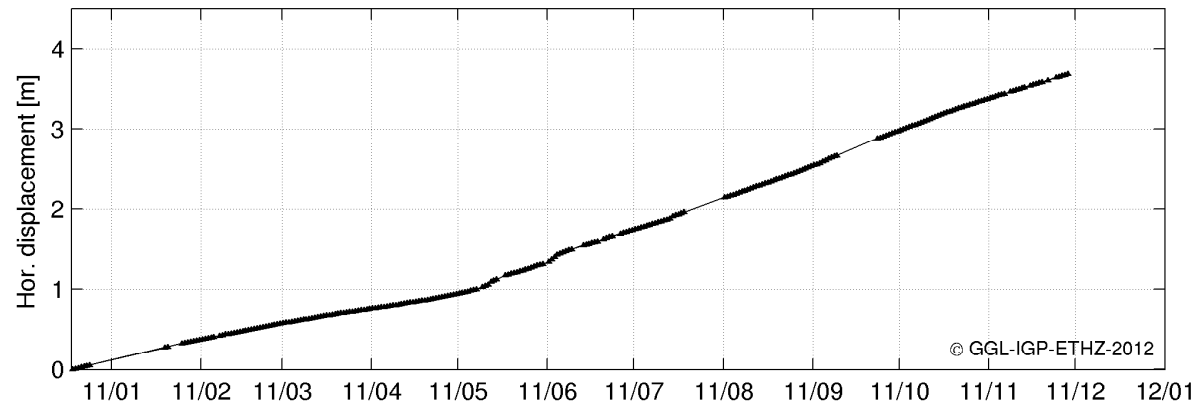
GGL, ETHZ

Low-cost GPS network in the Mattertal



Schnelle Stationen

Limpach, 2011



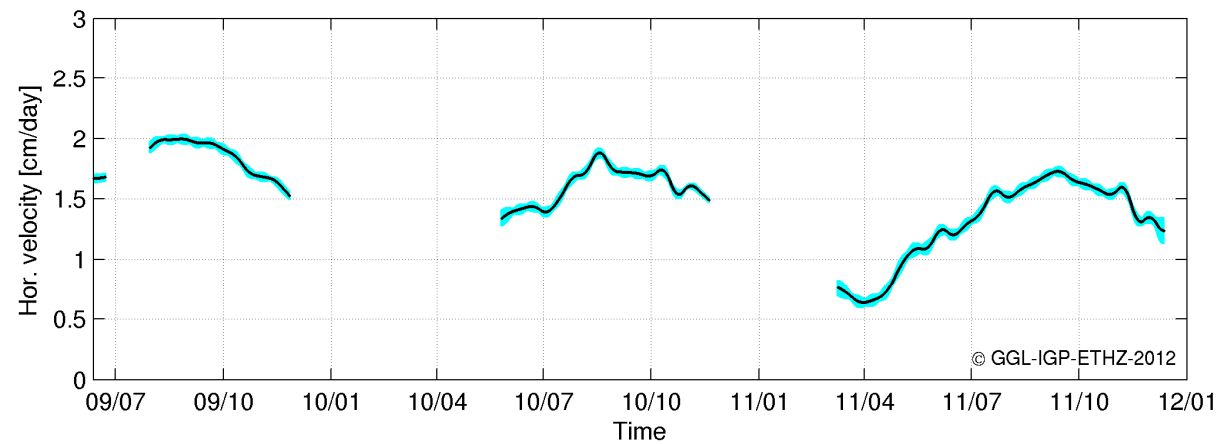
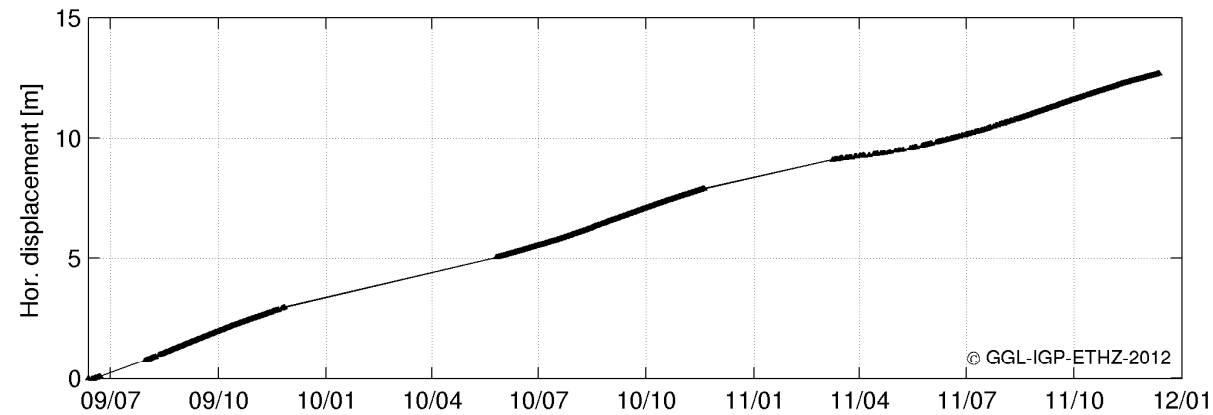
Graben Gufer Blockgletscher (Mattertal, Wallis)

25.07.2009

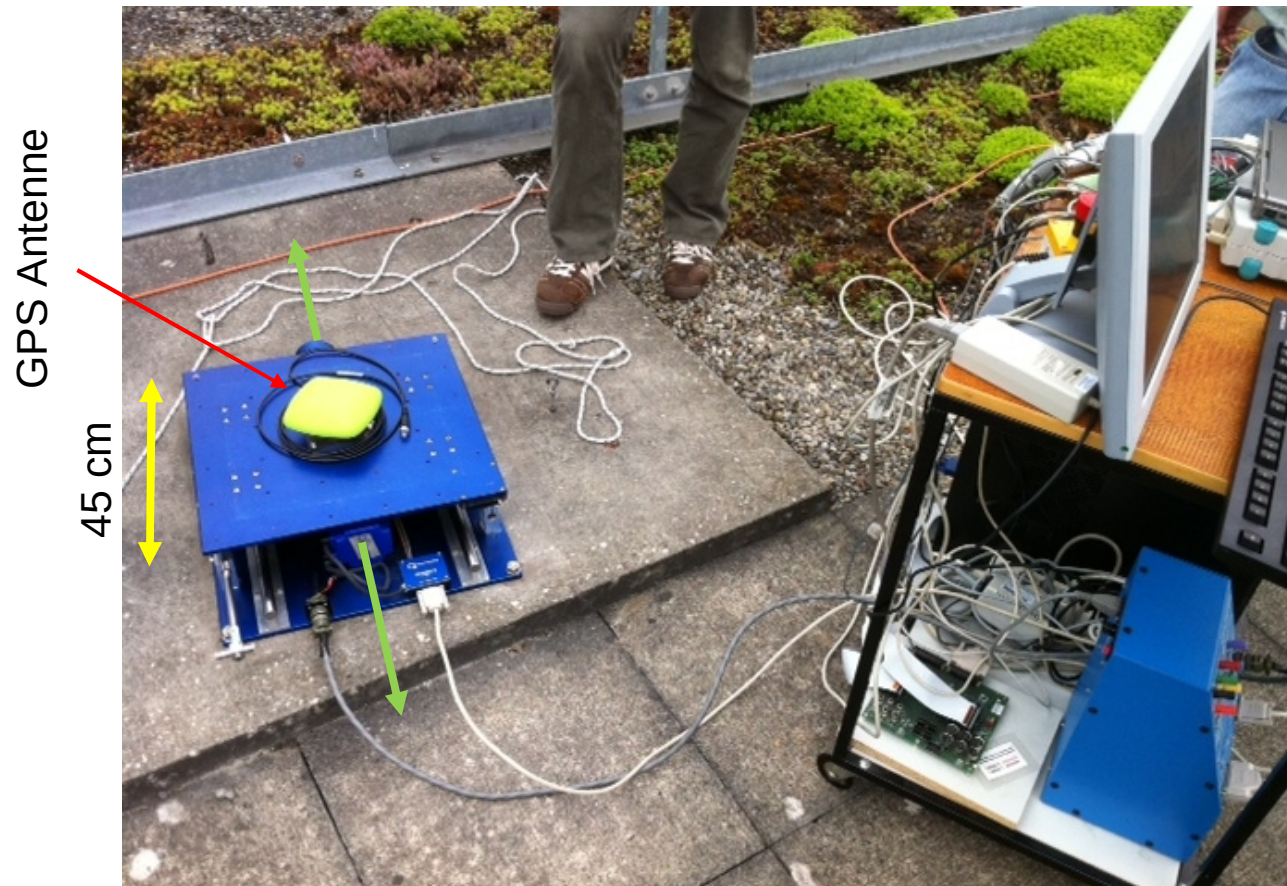


Fast stations

Limpach, 2011



Single axis shake table



Simon Häberling, 2011

§ Shake Table

- max. acceleration = 2.5 [g]
- max. velocity = 0.4 [m/s]
- max. frequency = 20 [Hz]
- max. amplitude = 7.5 [cm]

§ Inductive Sensors

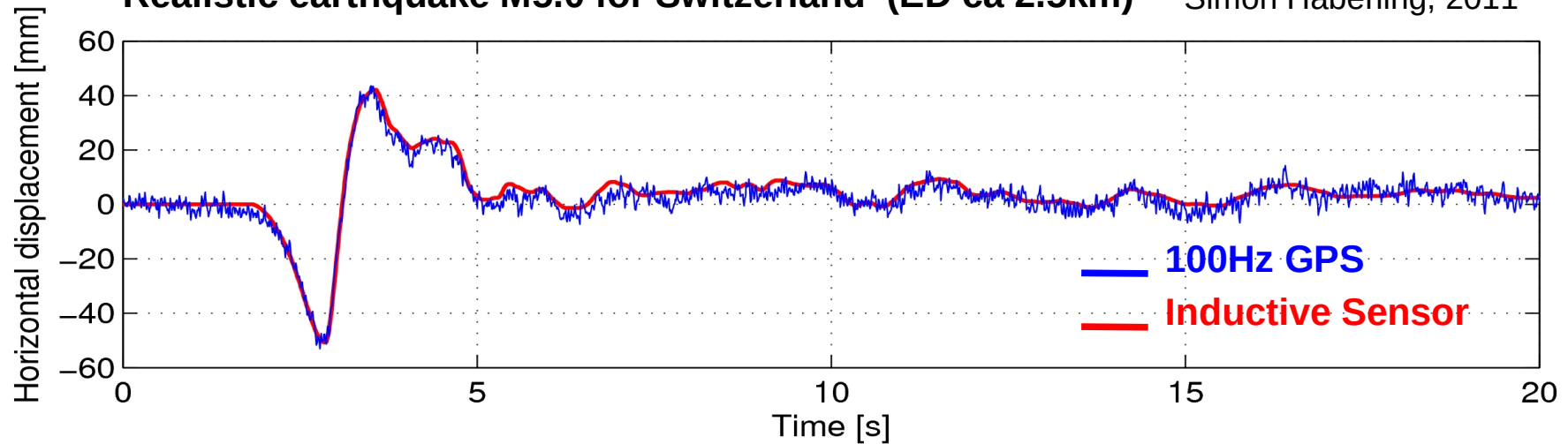
- resolution = 0.006 [mm]
- sampling rate = 2.4 [kHz]
- time synchr. < 0.4 [ms]

§ Total Uncertainty: < 0.1 [mm]

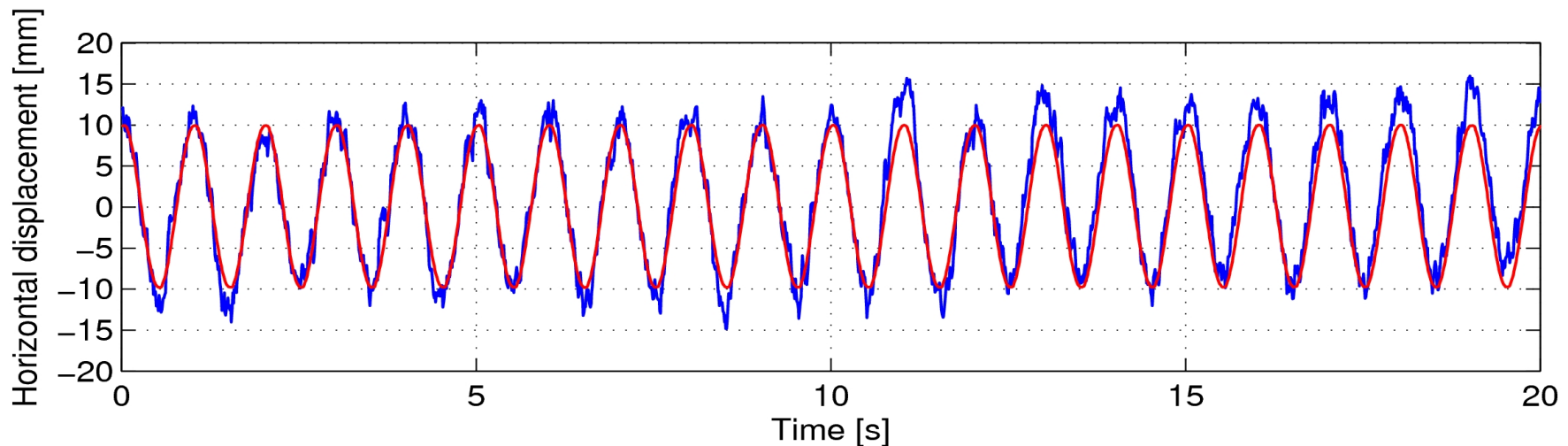
Erste Tests

Realistic earthquake M5.0 for Switzerland (ED ca 2.5km)

Simon Häberling, 2011



Sine with 1Hz, 1cm amplitude





Thank you for your attention