EURAC soil moisture monitoring site Mazia Valley, Italy

F Greifeneder, C Notarnicola, G Niedrist, S della Chiesa, G Bertoldi, U Tappeiner, M Zebisch, N Pierdicca (UNI Sapienza), S Paloscia (CNR-IFAC)
Mazia Valley, South Tyrol, Italy

- Total area: ~100km²
- Altitude: 920 - 3738m a.s.l.
- Main land-cover: pastures and meadows
- Mean annual precip.: ~550 mm

- 21 monitoring stations
- Time-series starting in 2009
- Calibration with gravimetric samples and mobile TDR measurements in several field campaigns
Mazia Valley, South Tyrol, Italy

- Total area: ~100km²
- Altitude: 920 – 3738m a.s.l.
- Main land-cover: pastures and meadows
- Mean annual precip.: ~550 mm

- 21 monitoring stations
- Time-series starting in 2009
- Calibration with gravimetric samples and mobile TDR measurements in several field campaigns
## SMAP In-Situ Stations

<table>
<thead>
<tr>
<th>Site name</th>
<th>ID</th>
<th>#</th>
<th>Variables (depth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schluderns/Sluderno</td>
<td>4401</td>
<td>1</td>
<td>SM* at 5 and 20cm (2 replicates) ST at 0.5, 5, 10, 20 and 50cm depth, PREC. Tair (both at 2m) manually downloadable by GSM connection. (Decagon sensor)</td>
</tr>
<tr>
<td>Muntetsching (B1500)</td>
<td>4401</td>
<td>1(6)</td>
<td>SM at 5 and 20cm (2 replicates) ST at 0.5, 5, 10, 20 and 50cm depth, PREC. Tair (both at 2m) manually downloadable by GSM connection. (5 more replicates of SM profiles will be installed in autumn 2013)</td>
</tr>
<tr>
<td>Tartscher Leger (B2000)</td>
<td></td>
<td>1</td>
<td>SM at 5 and 20cm (2 replicates) ST at 0.5, 5, 10, 20 and 50cm depth, PREC. Tair (both at 2m) manually downloadable by GSM connection.</td>
</tr>
</tbody>
</table>
Sensitivity analysis

B1000

- Graphs show variation in SMC and SIG0 across different dates

B1500

- Graphs show variation in SMC and SIG0 across different dates

B2000

- Graphs show variation in SMC and SIG0 across different dates

Legend:
- B1000: R=0.52
- B1500: R=0.53
- B2000: R=0.30
Retrieval experiment