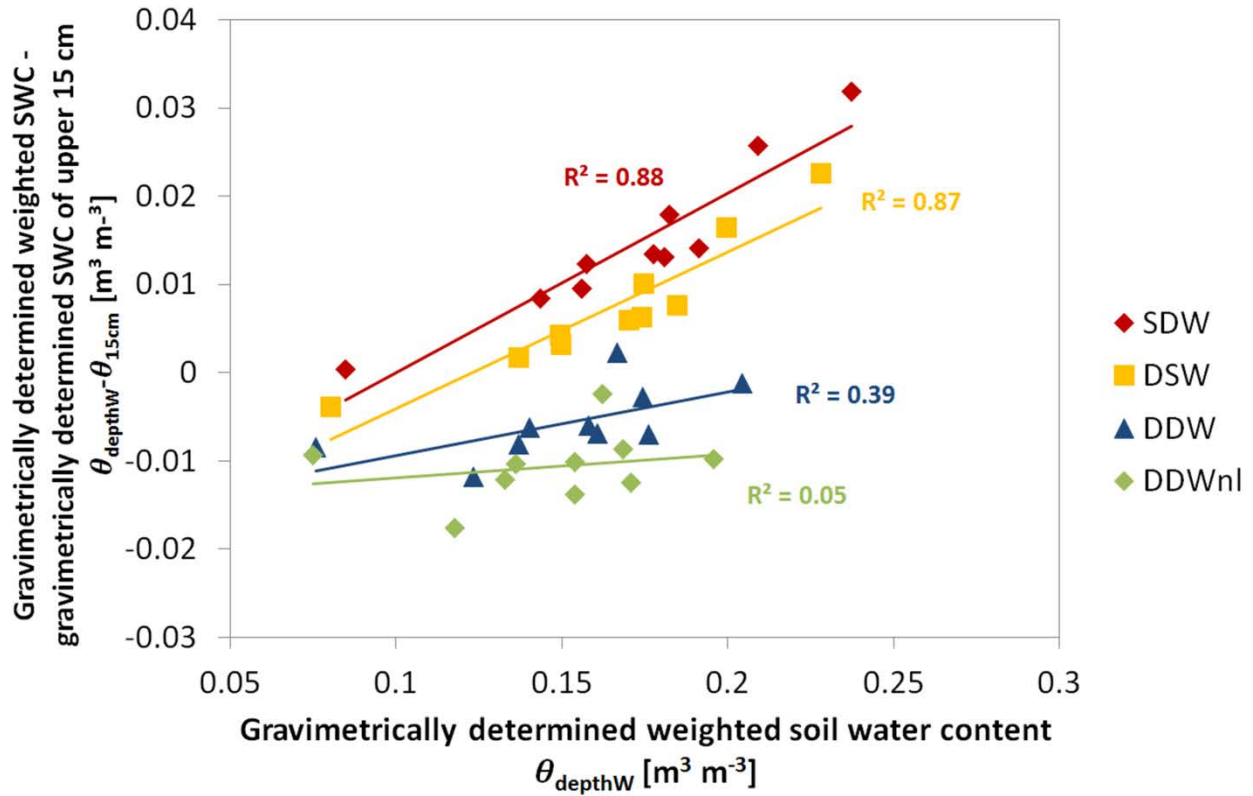


1
2 Figure S1. Incoming neutron flux from the neutron monitors in Kiel, Germany and Jungfraujoch,
3 Switzerland and synthetic continuous time series of incoming neutron flux combined from these
4 two and used for the corrections in this study.

5



6

7 Figure S2. Comparison of depth-(and distance-) weighted averages of gravimetrically determined
8 soil water content with unweighted gravimetrically determined soil water content of the upper 15
9 cm of the soil. The first two weighting approaches overestimate soil water content in the upper 15
10 cm especially at high soil water contents. The last two approaches have only a slight negative
11 offset and no significant relationship with wetness conditions.