Coordinated Cosmic-Ray Observation System (CCROS): October 14-16 2024, UNL

Prof. Trenton Franz, UNL (NSF #2401074)

https://snr.unl.edu/research/projects/CCROS/

Conference Goal: Assess the wealth of scientific opportunities presented by ground-based neutron monitoring across both low and high-energy spectrums. Bring together hydrology, atmospheric science and space weather communities

Where do we need Soil Moisture observations?

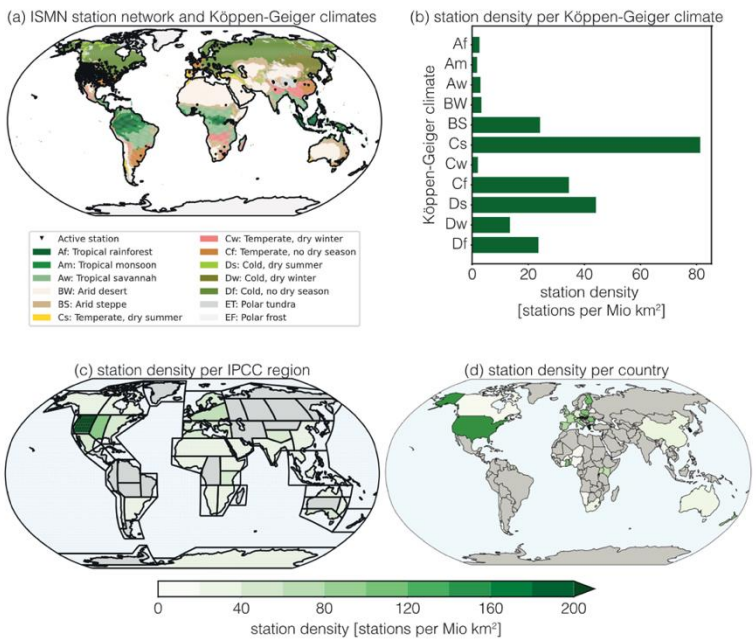

Figure 1. An overview of the International Soil Moisture Network (ISMN) station network: (a) Currently active ISMN stations (black dots) and their respective Köppen-Geiger class (colored map). ISMN station densities for each Köppen-Geiger climate (b), IPCC region (c) and country (d).

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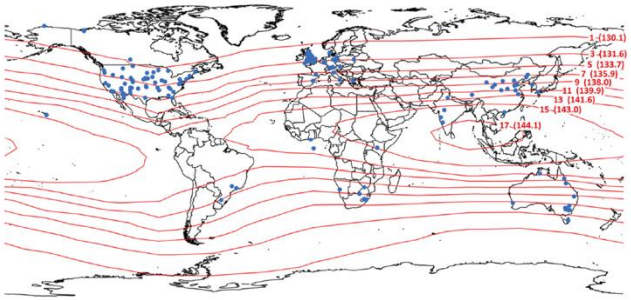
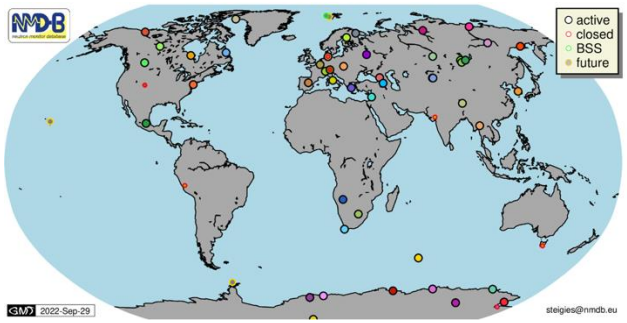
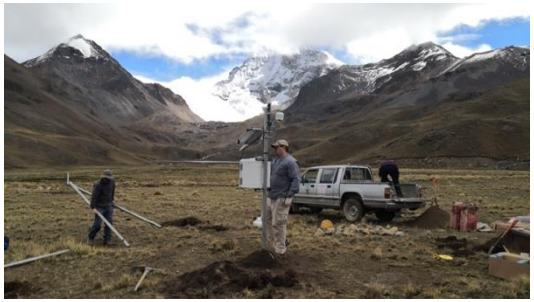
Global distribution of low-energy CRNS for hydrology and atmospheric science



Global distribution of high-energy neutron monitors for space weather





Biography:

Trenton E. Franz received his Ph.D (2011) in Civil and Environmental Engineering from Princeton University. He is currently an Associate Professor of Hydrogeophysics at the University of Nebraska-Lincoln in the School of Natural Resources and faculty fellow at the Daugherty Water For Food Global Institute. His current research involves using various hydrogeophysical sensors to understand how water moves through natural and managed ecosystems at various spatiotemporal scales. Professor Franz has helped install over 100 CRNS in 20 countries and trained hundreds of scientists in the method through his work with the United Nations and International Atomic Energy Agency.