

Think Spatial

The UCSB brown-bag forum on spatial thinking

Presents

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How can Units of Measurement Improve Spatial Data Science?

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3512 Phelps Hall



ABSTRACT:

Units of measurement are a well-understood system for describing part of the reference of quantities. They help, for instance, in figuring out whether we can meaningfully compare or add two quantities, or what the unit of measurement of a product of quantities is. In this talk I will explore whether they can help spatial analysis: Can we automatically decide, based on the unit of measurement, whether a value associated with polygon or grid cell is spatially extensive, or intensive? Should the “unitless” unit be extended to handle incompatibility between weight ratios (g/g), counts of persons, and counts of wildfires? I will illustrate this with recent implementation work in the R packages `udunits`, `units`, and `sf`; see also <https://doi.org/10.1016/j.csi.2017.10.002>

BIO:

Edzer Pebesma is professor in Geoinformatics at the University of Muenster, Germany. He is associate editor of *Spatial Statistics* and one of the editors in chief of the *Journal of Statistical Software*. He is an active developer of R spatial packages, and one of the authors of *Applied Spatial Data Analysis with R*, 2nd edition.

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