1163-55-1492   **Bei Wang*** (`beiwang@sci.utah.edu`). *Sheaves for Visual Encodings.* Preliminary report.

Sheaves are general and abstract objects that connect local data to global ones. Visual encodings are the mappings of data attributes to visual structures, upon which we create a visualization on a screen. In this talk, we explore the potential of using a sheaf-theoretical language to study visual encodings. In particular, we demonstrate that sheaves provide a unifying framework for visual encodings as well as a new perspective on theoretical foundations of visualization. (Received September 15, 2020)