1163-55-263   **Bradley J. Nelson*** (`bradnelson@statistics.uchicago.edu`). *A fibration model for d-dimensional image patches.*

Data sets of natural image patches have motivated the creation of several interesting topological models with non-trivial structure. In this work, we formulate a fibration model for arbitrary d-dimensional image patches, encompassing the Klein bottle for 2-dimensional image patches. We use this model to study patches in different 3-dimensional data sets, and show how different types of data produce different distributions of patches on the fibration. (Received August 31, 2020)