MATH6322 - Mathematical Foundations of Data Science

[MATH 6322](#) Mathematical Foundations of Data Science (3 semester credit hours) Graphs, topological polyhedra; homology of cubical sets; computations of homology groups, rational functions and interval arithmetic, maps on intervals, chain selectors; homology of maps; persistence diagram, applications to digital image processing, images and cubical sets, time-dependent patterns, and size function. Prerequisites: ([MATH 6312](#) or equivalent) and instructor consent required. (3-0) Y