Baylor Undergraduate Lecture Series in Mathematics
Ninth Annual Lectures

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The Fourth Dimension and the People You Meet There
Wednesday, November 9, 2016 • 4:00 pm
Bennett Auditorium (Draper 130)

Four-dimensional space has challenged geometers, writers, artists, philosophers and theologians, and now modern graphics makes it possible for us to see and interact with such spaces in dramatic ways. Guides to this fourth dimension include Edwin Abbott Abbott’s “Flatland” (slicing), Madeleine L’Engle’s “A Wrinkle in Time” (projections), and Salvador Dali’s “Corpus Hypercubus” (fold-outs). What lies ahead?

Folds, Intersections, and Inflections: Seven Ways to Distinguish a Cylinder from a Möbius Band
Thursday, November 10, 2016 • 4:00 pm
Marrs McLean Science Building MMSCI 301

This talk develops seven different visual ways to distinguish whether a strip neighborhood of a curve on a surface is an oriented cylinder or a non-orientable Möbius band. Computer graphics illustrations will explore fold curves of projections of surfaces into planes, self-intersection curves of surfaces in three space, and a new criterion in terms of surface inflections.