

Creighton University Department of Mathematics Invites You To Attend

Department of Mathematics Colloquium

Friday, November 2, 2018 | 3:30 p.m. | HLSB 522

Alex Zupan, Ph.D.,
Assistant Professor at the University of Nebraska - Lincoln



“The Topology of Spheres in Dimensions Two, Three, and Four”

“Topologists like to break up complicated objects into small, manageable pieces. As a simple example, a natural way to split the surface of the earth is to divide it into two pieces, the Northern and Southern Hemispheres. Of course, the earth's surface can also be cut into many more components, and a natural problem is to determine how each of these decompositions is related to any other. In dimensions two and three, the relationship between various ways to cut up a sphere into topological building blocks (called “handles”) is well-understood. In contrast, an analogous problem in dimension four remains wide open. We discuss some recent progress (joint with Jeffrey Meier) on this unresolved case.” Join us for a reception in HLSB 503 prior to Dr. Zupan's talk.