Dr. Tom Tretter, Professor of Science Education and Director of the Gheens Science Hall & Rauch Planetarium at the University of Louisville, will give a presentation aimed at understanding science at the extremes of spatial scale. Our K-12 science standards have long-recognized the importance of thinking across scale in both a prior national science education standards document (Benchmarks for all Americans, 1993) and the most recent (Next Generation Science Standards, 2013). This presentation will explore how thinking at each of these extremes of spatial scale informs foundational science understandings, and will use specialized planetarium software to take audiences on a virtual flight from Earth to the edge of the Universe.