

Abstract Submitted
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Scientific Visualization of Extra Dimensions¹ DON V. BLACK, Digital ChoreoGraphics — In the 21st Century, many theoretical physicists claim that higher dimensions may indeed exist. Arkani-Hamed, Dimopoulos, & Dvali (ADD) and Randall-Sundrum (RS), in addition to Kaluza-Klein (KK) and M-string theorists, have introduced reasonable explanations for the existence of heretofore “invisible” higher dimensions. Whether or not these extra dimensions actually exist is irrelevant to their contributions to the visionary conceptualization associated with novel and improved mathematical and physical analysis. Envisioning extra dimensions beyond the three of common experience is a daunting challenge for three dimensional observers. Intuition relies on experience gained in a three dimensional environment. Gaining experience with virtual four dimensional objects and virtual three manifolds in four-space on a personal computer may provide the basis for an intuitive grasp of four dimensions. This presentation is a video “outtake” of the author’s research into “Visualizing Extra Spatial Dimensions” at the University of California at Irvine.

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