

High Energy Public Lecture

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Hiding in the Mirror: The Mysterious Allure of Extra Dimensions

Throughout recorded history, humans have longed for a world in which there is more out there than meets the eye. Everything from Hidden universes and alternate realities to vastly different speculations about heaven, hell, and an afterlife have fascinated mankind for millenia, and more recently have captured the public's imagination in such TV shows as The Twilight Zone and Star Trek, in innumerable science fiction books and movies, and art from Picasso to Dali.

Physicists are now hotly debating the possible existence of any underlying mathematical beauty associated with a host of new dimensions that may or may not exist in nature. Further, it has now been proposed that the extra dimensions of string theory may not even be microscopically small. Instead, they could be large enough to house entire other universes with potentially different laws of physics, and perhaps even objects that, like the eight dimensional beings in a Buckaroo Banzai story, might leak into our own dimensions. Whenever scientists speculate about such hidden realities as extra dimensions we have to ask ourselves whether their speculations are more likely to reflect the world as it is, or as our minds are programmed to want it to be. Does the longstanding human love affair with extra dimensions reflect something fundamental about the way we think, rather than about the world in which we live?

These are the questions I shall discuss in my talk, which will in one sense provide a whirlwind tour of the scientific discoveries of the 20th century, but will do so within the context of art and culture over the past 400 years.

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7:30 PM– ARC Ballroom at UC Davis