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Warped Passages : Unraveling the Mysteries of the Universe's Hidden Dimensions

The universe has its secrets. It may even hide extra dimensions, different from anything ever imagined. A whole raft of remarkable concepts now rides atop the scientific firmament, including parallel universes, warped geometry, and al sink-holes. We understand far more about the world than we did just a few short years ago -- and yet we are more uncertain about the true nature of the universe than ever before. Have we reached a point of scientific discovery so advanced that the laws of physics as we know them are simply not sufficient? Will we all soon have to accept explanations that previously remained in the realm of science fiction? Lisa Randall is herself making these extraordinary breakthroughs, pushing back the boundaries of science in her research to answer some of the most fundamental questions posed by Nature. For example, why is the gravitational field from the entire Earth so defenseless against the small tug of a tiny magnet? Searching for answers to such seemingly irresolvable questions has led physicists to postulate extra dimensions, the presence of which may lead to unimaginable gains in scientific understanding. Randall takes us into the incredible world of warped, hidden dimensions that underpin the universe we live in, describing how we might prove their existence, while examining the questions that they still leave unanswered. Warped Passages provides an exhilarating overview that tracks the arc of discovery from early twentieth-century physics to the razor's edge of today's particle physics and string theory, unweaving the current debates about relativity, quantum mechanics, and gravity. In a highly readable style sure to entertain and elucidate, Lisa Randall demystifies the science and beguilingly unravels the mysteries of the myriad worlds that may exist just beyond the one we are only now beginning to know.

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