Lisa Randall ’84, the Frank B. Baird, Jr. Professor of Science, studies theoretical particle physics and cosmology in the Physics Department. One of the most cited theoretical physicists of recent years, Randall has received accolades from the National Academy of Sciences, The American Academy of Arts and Sciences, and the American Physical Society, among others. She is currently on tour for her book “Knocking on Heaven’s Door: How Physics and Scientific Thinking Illuminate the Universe and the Modern World,” which was published in September of this year.

Though Randall’s professional prowess lies in the sciences, she became interested in the arts when she was invited to write the libretto for “Hypermusic Prologue: A Projective Opera in Seven Planes” after Spanish composer Hector Parra read her book “Warped Passages: Unraveling the Mysteries of the Universe’s Hidden Dimensions.” Randall and Parra’s collaboration aimed to project audiences beyond known frontiers of the universe and illuminate the driving forces underlying creativity in art and science. Randall is also the co-curator of the Los Angeles Arts Association exhibition “Measure for Measure,” an exploration of the connection between visual scale and artistic expression. Her exhibition will be shown at the Carpenter Center for the Visual Arts from Nov. 3 to Dec. 22.

The Harvard Crimson: When did you first become interested in the relationship between science and art?

Lisa Randall: It is something that sort of grows on you. I have always enjoyed art, probably more than I realized. When I wrote my first book, [“Warped Passages: Unraveling the Universe’s Hidden Dimensions”], a friend of mine who read it said, “You should take an art class,” because I had used so many analogies from art. I do not think there was one moment where [the relationship] suddenly clicked, unless it was when I was invited to write the libretto for the opera [“Hypermusic Prologue: A
I think that was when I realized I might have some actual role to play in the art world.

THC: What kind of previous experience have you had working with art?

LR: Mostly, I have been an observer in terms of art. My first real experience in working with the arts was my involvement with [Hypermusic Prologue]. In addition to writing the libretto, I had the opportunity to work with the artist Matthew Ritchie to help envision how our story could be presented on a stage. There were many challenges in trying to represent an extra-dimensional world [on a stage] in an ordinary three-spatial-dimensional world. How do you make the extra-dimensional world look richer without the lower-dimensional one being too uninteresting to watch?

THC: When were you inspired to shift your collaboration to the visual arts?

LR: I met a number of people in the art world when I was visiting Los Angeles who were personally involved in creating art and curating it. Peter Mays [Executive Director of the Los Angeles Art Association] asked me if I wanted to work on an exhibition. He told me that one of the things that he found interesting was the fact that I was not all about representing science explicitly—that I really had more of an [artistic] outlook and thought the art was ultimately primary.

THC: Your upcoming exhibition “Measure for Measure” explores the connection between scale, art, and science. Can you explain how the exhibition achieves this aim?

LR: I thought it would be really interesting to take a theme that resonates with both scientists and artists. The very talented painter and photographer Lia Halloran, who co-curated the exhibit, and I selected artists that we thought could do something along those lines. For an artist, [a work] is all about scale and how things get projected. We were inspired by the scientific idea that you can have different messages [and] different physical properties on different scales. So we tried to encourage that in these various pieces. None of them were specifically about science, but they all reflected science and were also inspired by this idea of different scales. All of [the artists] really thought about how they would work with each other and work with the theme to really bring the exhibition together.
THC: What do you hope that viewers who do not have extensive backgrounds in the sciences take away from seeing “Measure for Measure”?

LR: First of all, I hope to convey that there is an intersection between science and art. Art is a reflection on culture, but [the exhibit] also hopefully inspires people to think about specific scientific ideas as well. I think it might make them look at the world a little bit differently, and realize that how you see the world depends on the scale with which you view it. All the pieces bear close inspection. Although not all the pieces were specifically reflecting on science, Felicity Nove’s piece and Meeson Yang’s pieces, for example, involve viewers in reflections on space or a specific biological element. Our formulation of our ideas about the world depends on how we view it.