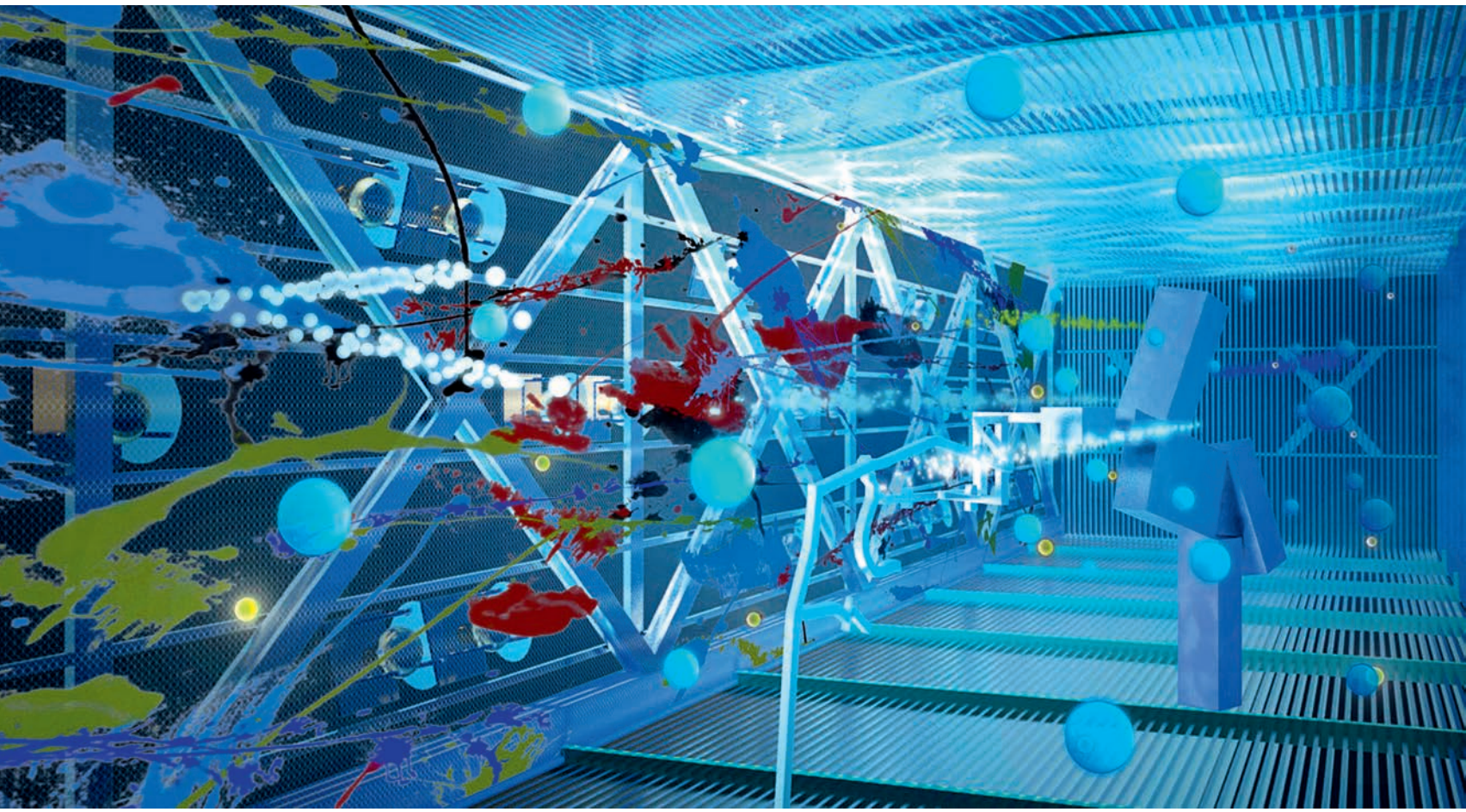

Art meets science: Looking beyond the visible

The Schingoethe Center and Fermilab team up for the first time in an exhibition

The intersection of art and science came to life this spring at "Beyond the Visible," an original exhibition created in a collaboration between the Schingoethe Center of Aurora University and the FRA guest artist and composer program at Fermi National Accelerator Laboratory.

When visitors walked into the exhibition at the Schingoethe Center, they entered a realm where scientific concepts were brought to life through art. In one room, a virtual reality experience immersed guests in a vat of liquid argon. Nearby, neon tubes blinked in patterns as musical bells pinged the imaginary, elusive scales of time and space.

"Having this art here at the Schingoethe Center allowed people who don't think of themselves as 'science people' to consider these concepts in new ways," said Natasha Ritsma, director of the Schingoethe Center and co-curator of the exhibition.

Located just 10 miles from AU's campus, Batavia-based Fermilab is one of the U.S. Department of Energy's 17 national laboratories. Fermilab scientists conduct rigorous experiments involving neutrinos, particle acceleration, quantum physics, and the most elemental particles that help explain the intricacies of space and time.

For a decade, the laboratory has hosted artists-in-residence who spend time talking to the scientists and learning about their research and data in order to transform them, externalize them, and manipulate them into works of art that are extraordinary and allow people to understand how this intangible-feeling science impacts the real world.

"Our collaboration focused on achieving a deeper understanding on every level—curator to curator, scientist to artist, artist to scientist—and ultimately connecting with the viewer through curiosity and understanding," said Georgia Schwender, founder of the Fermi-

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lab's artist-in-residence program and co-curator of the exhibition.

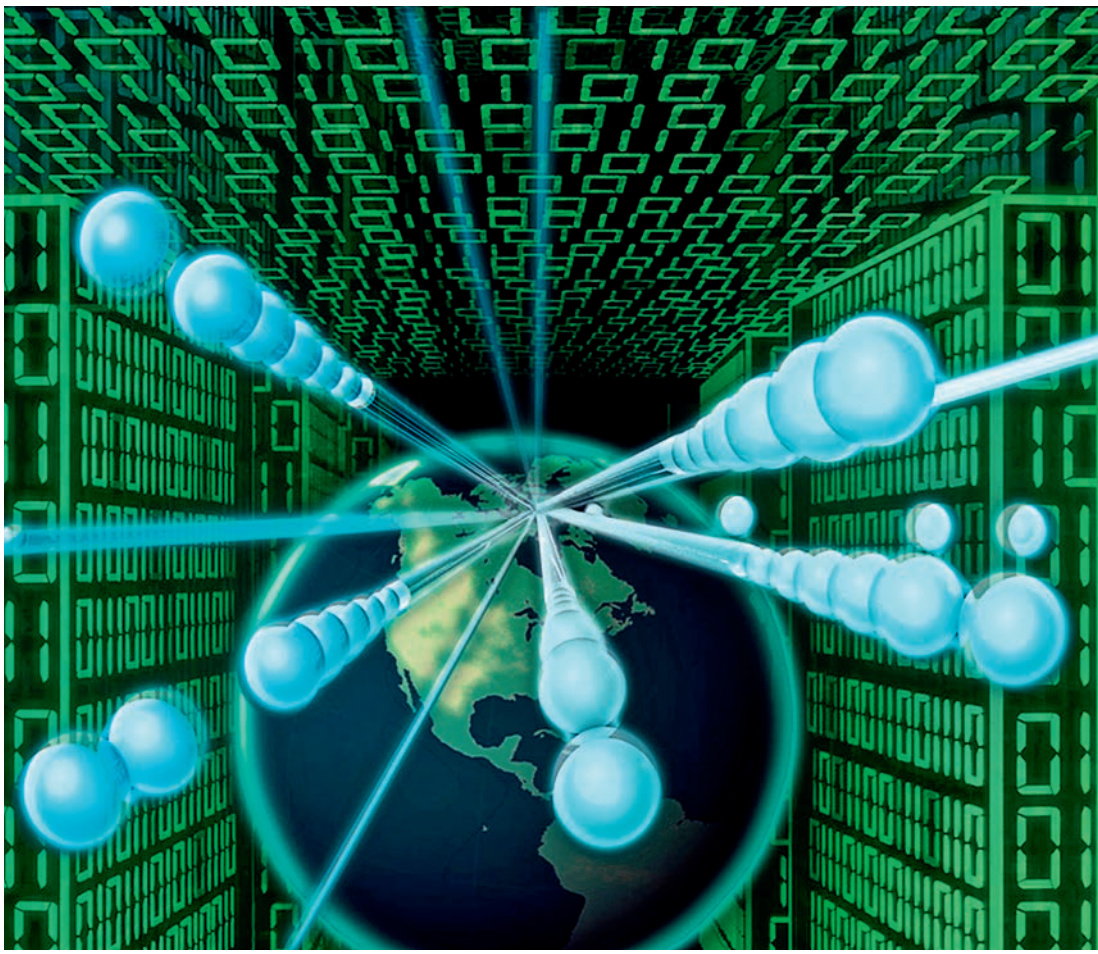
The partnership between AU and Fermilab brought years of work from these FRA guest artists and composers at Fermilab together in one place on display at AU. The scientists at Fermilab are creating experiments that are measuring and testing what seems impossible—and the work in this exhibition helps make it tangible.

In one example, artist Mare Hirsch's "Precession" (2022) explores the patterns used in the Muon g-2 experiment—an experiment conducted at Fermilab that examined the interactions of short-lived particles called muons in a magnetic field. Just one minute of gathered data from the experiment takes four days to express in light and sound in the exhibition, reflecting the immense scale of the data that Fermilab scientists are studying.

In James G. Jenkins' "Does This Ring a Bell" (2018), visitors could participate in an experiment themselves. The sculpture is made of entirely found objects given to Jenkins during his tenure at Fermilab. When visitors dropped a provided magnet down a copper pipe, it should have fallen to the bottom—but instead, thanks to the effect of eddy currents, it seemed to float down, taking a full 15 seconds to hit the bell at the base.

Throughout the exhibition, AU presented talks from scientists and artists, held workshops, and hosted the world premiere of "Quantum Field," a piano composition by FRA guest composer at Fermilab Roger Zare and performed by pianist Marianne Parker that imagines the piano as a conduit to explore quantum field theory.

The exhibition was sponsored by a grant from the National Endowment for the Arts. A



Opposite page: Ellen Sandor, "The Magnificent MicroBooNE: Science Through the Art of Jackson Pollock and David Smith," 2016. Digital PHSCologram. **Above:** Ellen Sandor, "Binary Bypass: Neutrinos for Data Communications," 2016. Digital PHSCologram. Images courtesy of the artist.

Left: Guests at Schingoethe's opening reception surround Ricardo Mondragon's "Spherical Harmony," 2022. Birch. **Above:** Ellen Sandor, "The Supernova Spectacle," 2016. Digital PHSCologram. Image courtesy of the artist.