



Photo: Fred Ullrich, Fermilab

## The richness of particle physics

I've heard it said that culture is the opposite of nature. For me, that highlights the remarkable richness of particle physics. The "nature" of particle physics (the science) is a deep, complex mine of concepts and discoveries. But the culture is equally rich, with a long history, a fascinating sociology, and a wealth of artifacts that reflect the creativity of the people involved.

More so than many other fields of science, particle physics can claim a tightly woven, long-term history. This is partly because the human collaborative scale of particle physics is vast. It is also because the lifetimes of experiments are so long. Mix in the international character of the research and it is not surprising that culture is prominent alongside the nature of particle physics.

The two halves of particle physics, nature and culture, relate in many ways. Particle physics inspires culture, absorbs influences from the greater culture around us, and creates a culture of its own. This issue of *symmetry* examines all of these relationships.

Particle physics inspires external culture in many instances. This can happen, for example, through art and architecture (see the gallery on page 32). In response, people outside physics sometimes support scientists and research projects, through donations and other means (see page 20).

As physicists spend time working in other laboratories, they absorb foreign cultures, which can affect how those scientists approach their work. A feature article on page 26 discusses the benefits of long-term visits to other labs, including the cultural learning that goes along with scientific exchange.

Particle physics also has its own rich internal culture, a snapshot of which is our "life list" (page 10). Just as birdwatchers keep lists of species they have seen, our list is full of experiences for particle physics fans to savor. We have not made it comprehensive; it is merely a taste of what is out there, as an inspiration for our readers. Please let us know if we missed any of your favorites so that we can share them with the rest of the *symmetry* community.

The field of particle physics is fortunate to have its natural and cultural aspects balance each other and mesh together so well, enriching everybody involved in the enterprise.

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