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#### READERS' FORUM

then there are geniuses like Galileo and Newton. Well, Ettore was one of them."

Majorana was clearly an influential physicist who did exceptional work. However, that quote illustrates a pervasive and harmful belief, widely held among physicists, of the lone genius. According to the myth, the greatest advancements in physics are done by uniquely brilliant individuals working alone. That idea minimizes the many important discoveries made by numerous scientists in collaboration. It also devalues the careers of those who do solid and influential work over many decades but may never make "discoveries of great importance, fundamental for the development of science." The myth's implied corollary-that if you cannot do great work alone, there is no place for you in physics—contradicts the history of the field.

The lone-genius myth is harmful for everyone, but it is especially damaging for women, people of color, the LGBTQ+community, and members of other minority groups. They frequently face impostor syndrome, negative cultural factors, the implicit biases of colleagues and institutions, and a climate that minimizes collaboration and inclusion. Perpetuating the myth only increases those feelings and further harms diversity and inclusion efforts in physics.

The lone-genius myth is rarely true. Although instances exist of scientists making breakthroughs while working alone, they are not common. The majority of scientists work in teams ranging from a few people to large collaborations spanning multiple continents. Even scientists who publish groundbreaking singleauthor papers usually acknowledge colleagues with whom they discussed their ideas. Now more than ever, science is a team effort that requires many people and multiple perspectives. I strongly encourage science writers to describe the con-

# CONTACT PHYSICS TODAY

Letters and commentary are encouraged and should be sent by email to ptletters@aip.org (using your surname as the Subject line), or by standard mail to Letters, PHYSICS TODAY, American Center for Physics, One Physics

Ellipse, College Park, MD 20740-3842. Please include your name, work affiliation, mailing address, email address, and daytime phone number on your letter and attachments. You can also contact us online at <a href="https://contact.physicstoday.org">https://contact.physicstoday.org</a>. We reserve the right to edit submissions.

tributions of outstanding scientists like Ettore Majorana without subscribing to the myth of the lone genius.

Stephanie Law (slaw@udel.edu) University of Delaware Newark

# Consequences absent from bomb assessment

n air of unreality overcame me as I read David Kramer's article about evaluation of new nuclear bomb technologies (Physics Today, February 2020, page 23). The only concern mentioned is whether the physics of the new test facility will adequately ensure the reliability of the new designs without actual explosive tests being carried out. It's a neutral, objective presentation of some interesting physics.

But if ever those warheads were actually used, whether in error or in anger, PHYSICS TODAY and most or all of its readers would cease to exist. Presumably, about 25% of US residents would be fortunate enough to be vaporized instantly. Maybe another 25% would die in the next week from injuries and radiation sickness. And would any survive the ensuing nuclear winter without public supplies of electricity, fuel, food, and medicine? Russia's people would suffer the same, assuming they were hit in full retaliation by those well-designed US bombs. And what about the rest of the world? Could all memory of PHYSICS TODAY be wiped out along with humankind's accumulated knowledge of physics?

I suggest that PHYSICS TODAY follow up by publishing a neutral, objective, physics-based analysis of the consequences of full-scale nuclear war. It might, of course, raise the question, Why exactly do the world's "great powers" need to have thousands of nuclear weapons?

Garth van der Kamp

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### Correction