APRIL 14, 2023

White House Office of Science and Technology Policy Celebrates World Quantum Day

By the OSTP National Quantum Coordination Office

Every April 14th, scientists, international organizations, and government agencies around the world — including OSTP — mark World Quantum Day, an international, grassroots celebration of quantum science. April 14th — or "4.14" — marks the rounded first three digits of Planck's constant, a value which sets the quantum scale.

Today, we reflect on the key role that quantum science has played in enabling modern technologies like solar panels, semiconductors, and medical imaging devices, its future role in critical emerging technologies like quantum computers, and the expanding career opportunities in this interdisciplinary field.

As part of World Quantum Day, the National Q-12 Education Partnership (Q-12), spearheaded by OSTP and the National Science Foundation (NSF), has engaged in several activities to connect K-12 students and teachers with quantum science, including:

- **"What YOU can do with quantum science, featuring LeVar Burton, Astronaut Josh Cassada, and more!"** A new video released today to celebrate World Quantum Day 2023, narrated by Levar Burton (of Roots, Star Trek, and Reading Rainbow fame), addresses questions about quantum science from middle school students and teachers. It features professional quantum scientists and students from diverse backgrounds, and NASA astronaut Josh Cassada.



"What YOU can do with quantum science, featuring LeVar Burton, Astronaut Josh Cassada, and more!" A World Quantum Day 2023 video produced by the National Q-12 Education Partnership, spearheaded by OSTP and NSF, narrated by Levar Burton, and featuring NASA Astronaut Josh Cassada.

- **Quantum To-Go.** The American Physical Society, in partnership with the National Q-12 Education Partnership, launched a new initiative called Quantum To-Go that connects practicing quantum scientists with K-12 and community college educators and students for virtual classroom visits and in-person lab tours. This initiative trains quantum scientists on best practices for explaining quantum science to young audiences.

- **QuanTime.** NSF, the Department of Energy (DOE), NASA and industry support QuanTime, a collection of free K-12 quantum classroom activities that can be completed in a single class period. Launched last year, educators now have three options for hands-on activity kits, six options for online activities, and three options for printable activities. This year's activities became available today and will remain available through May 31st.

Today, the U.S. Government is also celebrating quantum advances and working to grow U.S. leadership and international collaboration, including:

- **Planck's Constant Poster.** The National Institute of Standards and Technology (NIST) has produced a printable 18"x24" poster about Planck's Constant, a number that sets the size of the "quantum realm," and for which April 14th was chosen to honor. In partnership with the

American Physical Society, the poster will be sent to interested high schools across the country.

- **Graphics and Promotional Materials.** OSTP and NIST created a flyer describing four ways that quantum scientists can get involved in World Quantum Day. NIST created a series of six graphics describing, “Where is Quantum in Your Everyday Life?” And the Department of Energy’s Oak Ridge National Laboratory created public domain graphics for World Quantum Day in a variety of aspect ratios.

We invite everyone to learn more about the role of quantum science in our daily lives and learn about the National Quantum Initiative. To get started, you can read this fact sheet or share images and videos from our quantum image and video gallery.

Happy World Quantum Day!

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