Open Schools Journal for Open Science

Vol 9, No 1 (2026)

Open Schools Journal for Open Science

Editorial

Sofoklis Sotiriou

doi: 10.12681/osj.44138

To cite this article:

Sotiriou, S. (2026). Editorial. *Open Schools Journal for Open Science*, *9*(1). https://doi.org/10.12681/osj.44138

Open Schools Journal
for Open Science

Editorial

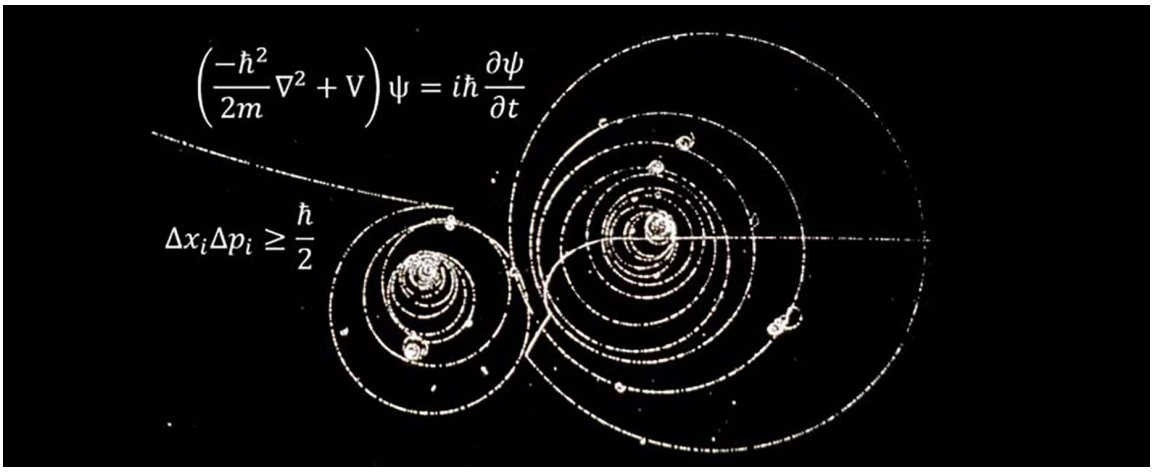
In the first issue of 2026, our student scientific journal travels—from the familiar excitement of holiday storytelling to the frontiers of astronomy, quantum science, and the deep ocean—showing how curiosity becomes knowledge when it is paired with method, evidence, and clear thinking.

We open with a guest contribution that may look playful at first glance: **the logistics of Santa's trip**. Yet beneath the magic lies a serious scientific point. Even the most imaginative scenario depends on constraints—time, distance, energy, resources—and on the ability to design reliable systems. The article reminds us that *systems thinking* is not only for engineers and planners; it is a mindset for anyone trying to understand how complex realities work. Whether we model a delivery route, a transportation network, or an ecosystem, we are always asking: What are the parts? How do they interact? Where are the bottlenecks? What assumptions must be tested? This opening piece sets the tone for the entire issue: wonder is powerful, but it becomes scientific when it is structured.

From there, the journal turns its gaze upward. Two articles focus on **astronomy** and on D-Space (https://d-space.gr/)**,** an initiative that aims to transform schools into *astronomy living labs*. These contributions highlight something essential about science education: it is strongest when learning happens through observation, experimentation, and authentic questions. Astronomy is uniquely suited to this approach—students can collect data, compare measurements, use digital tools to analyze patterns, and connect classroom concepts to the real sky above their community. The D-Space perspective extends this further by treating the school not just as a place where science is taught, but as a place where science is *done*: a hub where instruments, data, teamwork, and scientific communication become part of everyday learning.

The core of the issue then explores one of the most fascinating and challenging areas of modern science: **quantum mechanics**. In six articles that were presented in the 2nd Balkan Students Summer School – organized by the Balkan Physical Union in August 2025, students trace quantum theory from its first steps a century ago—when classical physics could no longer

explain key observations—to today's rapidly developing quantum technologies. Together, these papers show how a scientific revolution begins: with anomalies that demand new ideas, with debates that sharpen definitions, and with experiments that force nature to "answer back." They also show how quantum physics, once considered mainly theoretical, is now deeply practical. Quantum concepts underpin modern electronics, precision measurement, secure communication, and emerging computing architectures. At the same time, the articles reflect an important scientific attitude: excitement must be balanced with clarity. What is truly possible today? What remains experimental? What are the engineering challenges—scaling, noise, error correction, materials—that stand between a promising principle and a working technology? These questions are where student researchers begin to think like scientists: not only *what could be*, but also *what evidence supports it* and *what must be solved next*.



Finally, the issue dives into a different frontier: the deep sea. Our closing biology paper connects deep-ocean ecosystems to the wider discussion of **blue growth**—the effort to develop ocean-based economies in a way that is sustainable and responsible. Here, scientific thinking again becomes essential. The deep sea is rich in biodiversity and provides critical ecosystem services, yet it remains one of Earth's least understood environments. The article invites readers to consider the balance between innovation and protection: how do we explore and benefit from marine resources without undermining the ecological stability on which long-term prosperity depends? In this sense, the paper complements the quantum section: both are about powerful new possibilities, and both require careful evaluation of risks, limits, and responsibilities.

Across these ten contributions, a shared message emerges. Scientific progress—whether in "magical" logistics, astronomy in schools, quantum technologies, or ocean sustainability—depends on the same foundations: curiosity guided by structure, imagination tested by evidence, and knowledge communicated with care. We congratulate all student authors for their work and invite readers to approach each article with the same spirit that created it: open-minded, critical, and ready to ask the next question.

Happy Reading and Warm Wishes for a great New Year full of scientific discovery and exploration.

Dr. Sofoklis A. Sotiriou

Editor of the Open Schools Journal for Open Science