Can Our Civilization Rise-Up to Win the Cosmos Award?

By Avi Loeb on October 7, 2023



Credit: Chris Michel (October 4, 2023)

My Italian postdoc associates, Fabio Pacucci and Giacomo Fragione, told me that the culture of Italy does not get any more southern than Reggio Calabria. Indeed, my connecting flight from Rome to Reggio Calabria passed over the southern borderline of Italy with the Sunglazed Mediterranean Sea. The view was familiar as I was born on the eastern shore of the Mediterranean, but life in Italy appears to be more relaxed, elegant and tasty than my childhood memories.

For reasons that escape me, the Italians are nice to me. A dozen years ago, I was <u>awarded</u> "<u>Cattedra-Galileana</u>", a lectureship at <u>Scuola Normale Superiore</u> - the most prestigious academic institution in Italy, located in Pisa - the birthplace of Galileo Galilei. This was my introduction to Galileo's intellectual landscape. Back then, I did not imagine how much influence this encounter would have on my career.

Currently, I lead the <u>Galileo Project</u> in search for extraterrestrial technological objects near Earth. The scientific vision of the Project is inspired by Galileo's work, namely seeking the truth boldly, guided by evidence and not prejudice. The <u>success</u> of the recent expedition in retrieving materials of <u>extrasolar composition</u> from the first recognized <u>interstellar meteor</u>, IM1, highlights the benefit of taking risks in science. Without allowing for new knowledge - we would be stuck with old knowledge. IM1 was the first large object identified from outside the solar system, based on its <u>speed</u> – faster than <u>95% of the stars</u> in the vicinity of the Sun. It also had <u>material strength tougher than 99.7% of solar system rocks</u> and <u>a</u> <u>composition different</u> from rocky material on Earth, the Moon, Mars and known asteroids. Finding materials from an alien environment saves us from the need to take the interstellar trip to those environments, which would take our existing spacecraft millions to billions of years. Over the past week, I dedicated much of my time to the interpretation of the expedition's findings.

My intellectual umbilical cord to Galileo is still feeding me with nutrients and scientific courage. A week ago, I performed Josh Ravetch's brilliant new play "<u>A Piece of Sky</u>", and repeated Galileo's words: "Eppur si muove", in the context of <u>'Oumuamua's propulsion</u> around the Sun without a cometary tail.

My work on `Oumuamua brought me to Reggio Calabria. I was <u>awarded</u> the 2023 Cosmos Award for my bestselling book "<u>Extraterrestrial</u>", triggered by `Oumuamua's anomalies. This honor is especially meaningful to me because it was decided by a majority vote of 600 students and not by a small committee of senior colleagues.

During the award ceremony, I am scheduled to deliver an hour-long lecture about my latest research on interstellar objects, including an exciting new paper that will be submitted for publication next week (stay tuned!). My primary goal in traveling from Harvard to Italy for the event is not to celebrate getting the award, but to promote science where it matters the most: among young minds who are not chained to prejudice, do not carry a restraining baggage of past knowledge, and are not motivated by jealousy and ego. My hope is that my award acceptance speech will inspire young scientists to be bold, take risks, discover new knowledge and bring all of us to a better ranking in the class of intelligent civilizations.

To find packages from other civilizations, we must attend to anomalies in the properties of pieces of sky – similarly to Galileo noticing the motion of the moons around Jupiter. My visit to Italy is intended to celebrate the Italian tradition of not taking past constraints too seriously and maintaining curiosity when others pretend to be "the adults in the room".

Once we find cosmic partners, the Italian "Festival Cosmos" in Reggio Calabria, pioneered by the theoretical astro-particle physicist <u>Gianfranco Bertone</u>, can be extended to include a celebration of scientific insights from interstellar partners. Here's hoping that our civilization will rise-up to win the Cosmos Award in the global contest with extraterrestrials.



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ABOUT THE AUTHOR



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First Sign of Intelligent Life Beyond Earth" and a co-author of the textbook "*Life in the Cosmos*", both published in 2021. His new book, titled "*Interstellar*", was published in August 2023.