Statement on the Importance of Outreach in My Life

I was born in a town in the southern tip of Italy, with few street lights and many stars. The possibilities to visit jaw-dropping science museums or interact with academics were scarce — my only contact with the sky was a little telescope gifted by my parents. At age 10, I came in touch with a sexagenarian teacher, Cosimo Distratis, who had built a small astronomical observatory in the southern wasteland. This man opened my eyes to the beauty of stars and taught me how to make a rudimentary spectrograph. Although this good man is no longer with us, he is the ultimate reason I became an astronomer. Through his passion, support, and the wide-ranging outreach activities he organized for the local community, he inspired many young kids, including me, to become scientists. An essential part of filling the gap between people (especially from disadvantaged communities) and science is getting people excited about it. This is why I am a powerful advocate of outreach activities: I would never be a scientist without those stargazing events on warm southern Italian nights.

I recognize the power of digital media in today's world and actively utilize it to disseminate scientific knowledge to a global audience. Understanding the diverse nature of this audience, I focus on creating content that is informative and relatable across different cultures and languages. This includes developing multilingual educational videos and online resources that adapt to varied learning styles and levels of scientific understanding. By doing so, I aim to transcend geographical and linguistic barriers, igniting curiosity and a passion for science. The ultimate goal is to make the wonders of astronomy and the excitement of scientific discovery universally accessible, fostering a global community of science enthusiasts and future scientists.

For example, I have been an educator for TED for six years, and I have created ten videos dedicated to popularizing astronomy, with 12+ million views and translated into 20+ languages. The figure below shows still images from these TED-Ed videos. For each of those, I directed a team of about ten people (animators and editors). One of my favorite outreach contributions is a TED-Ed video titled "Hawking's Black Hole Paradox Explained", where I narrate how the concept of "information" is crucial in physics and why black holes may be able to "destroy information" from the Universe. This work educates viewers on complex scientific ideas by simplifying them and connecting them to historical anecdotes. The ultimate goal is, as always, to make astrophysics accessible and engaging to people worldwide.



A collection of still frames from my ten TED-Ed videos. They cover topics ranging from physics to astronomy, with references to the history of science. These videos are used in 1000+ classes worldwide.

I am also a regular writer for Scientific American, to which I contributed five op-eds. My favorite one is "How Taking Pictures of Nothing Changed Astronomy", which tells the fantastic story of deep-field imaging, especially in the optical and X-ray regions of the electromagnetic spectrum.

In conclusion, I hope that my outreach activities will spark people's curiosity and convince many kids to become scientists.