# GEUMETRICIAN'S VIEWS

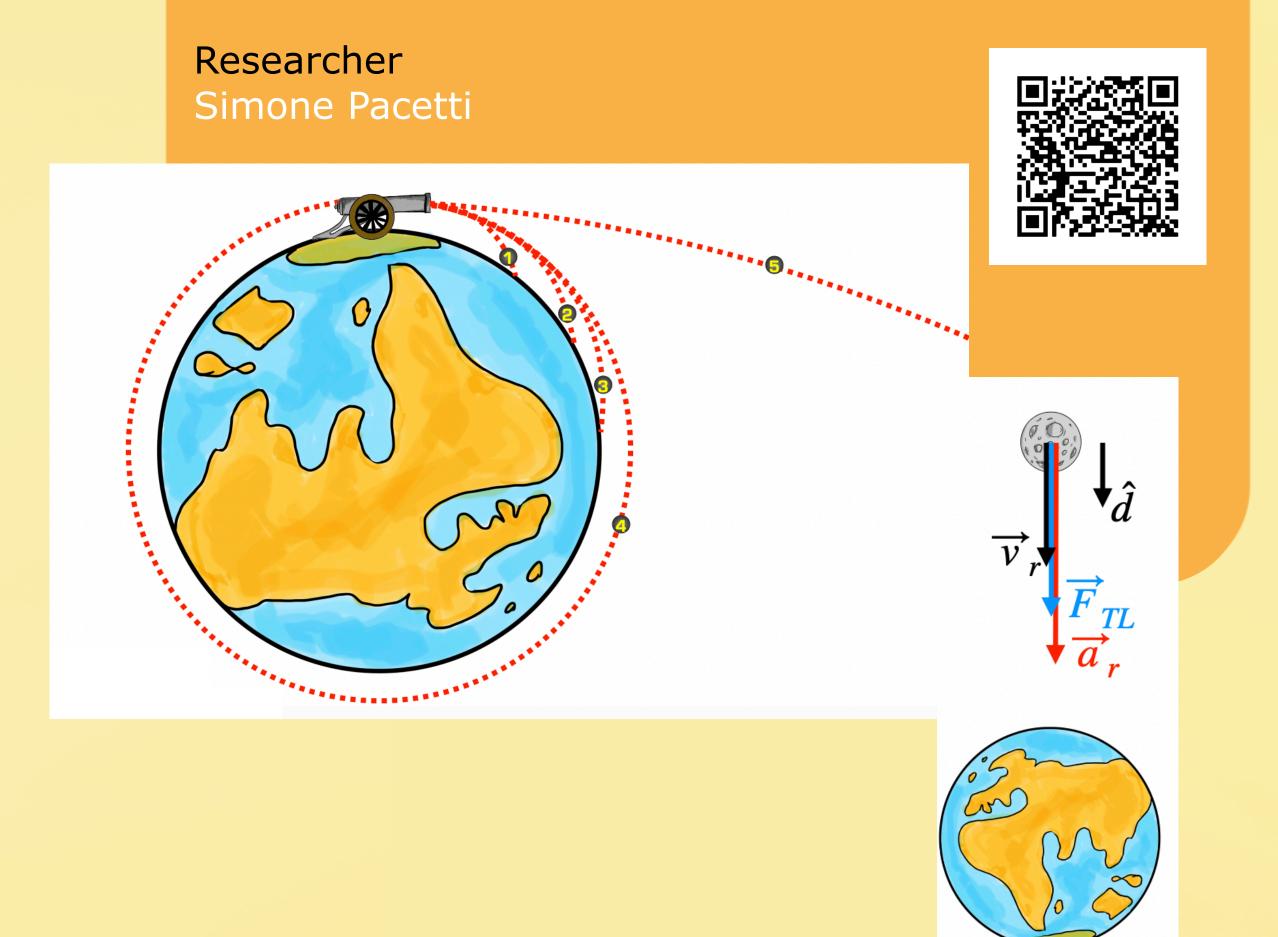
## TOPIC: ASTRONOMY



### MATHEMATICAL VIEW



Is the Moon orbiting the Earth or falling towards our planet? The answer needs physics and mathematics, together as always! Drawing spheres, vectors, and a cannon can help to understand it.



#### ARTISTIC VIEW



The Moon and our dreams

We need just some colorful pieces of chalk, a lot of creativity, the Moon over our head, and the artwork will be magnificent.

Artist

Cristiano Schiavolini



#### **COMMON VIEW**



Can you calculate the volumes of Earth

and The Moon?  $Mass_e = 5.98 \times 10^{26} \text{ kg}$   $V = \frac{5.98 \times 10^{26} \text{ kg}}{5.52 \text{ g/cm}^3} = \frac{59809}{5.52 \text{ g/cm}^3} \times 10^{26} \text{ g}$   $Mass_e = 7.35 \times 10^{26} \text{ kg}$   $V_{\text{Hoom}} = \frac{7.35 \times 10^{26} \text{ kg}}{3.34 \text{ g/cm}^3} = \frac{73509}{3.34 \text{ g/cm}^3} \times 10^{26} \text{ g}$   $V_{\text{Hoom}} = \frac{7.35 \times 10^{26} \text{ kg}}{3.34 \text{ g/cm}^3} = \frac{73509}{3.34 \text{ g/cm}^3} \times 10^{26} \text{ g}$ Softa and Gabriels



Astronomy is a scientific discipline with many aspects related to mathematics, physics, and art. Students are usually fascinated by the Universe, and how it formed and evolved. In 2022, the James Webb Space Telescope, the most powerful space telescope ever built, will give us new spectacular clues about the origin of our Universe. This will ease teachers' effort to interest students in activities focused on mathematical and physical aspects of the celestial objects. Astronomy is also the oldest natural science and its history is deeply related to the evolution of philosophical thinking. Many poets, writers, and artists have been inspired, for instance, by the moon. It was the observation of the moon that led Isaac Newton to make one of his greatest scientific discoveries, the theory of gravitation.





"Once we overcome our fear of being tiny, we find ourselves on the threshold of a vast and awesome Universe that utterly dwarfs — in time, in space, and in potential — the tidy anthropocentric proscenium of our ancestors."

Carl Sagan







