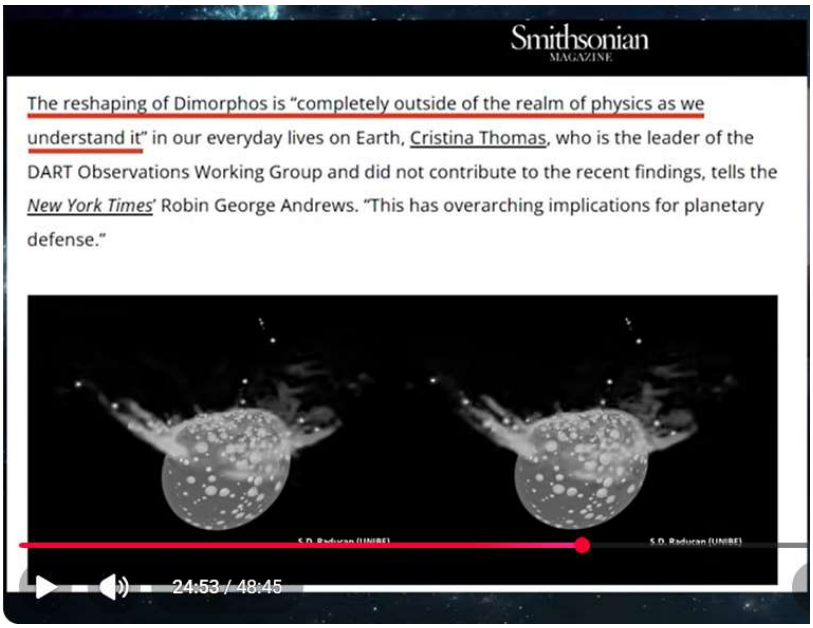
Conversation between Kevin Lea and Dr. Cristina Thomas About the DART Mission

Wednesday April 29, 2026, Northern Arizona University

Background

Prior phone call with Dr. Thomas

On March 24, 2026, while preparing for my March 25 interview with Real Science Radio (RSR), I called Dr. Cristina Thomas, Associate Professor at Northern Arizona University, to discuss a quote attributed to her, seen in the screenshot below. (You can view the RSR interview here: youtube.com/watch?v=pb3bPDkJCvs. The relevant segment is at the 24-minute time stamp.)



In our conversation, Dr. Thomas expounded on what she meant by this quote, that is, that people often fail to understand how the effects of physics in space are so different from what is commonly observed on earth. I agreed with her that some aspects of mass in orbital motion in the vacuum of space are not intuitive for those dealing with mass in motion on earth.

But later, Dr. Thomas presented the current established hypothesis for the formation of binary asteroids: (1) the mother asteroid increases in spin speed through non-gravitational forces produced by the sun; (2) the increasing spin speed increases the centrifugal force such that debris at the equator of the mother asteroid (Didymos in this case) is ejected from the asteroid; and (3) the ejected debris accretes in space to form a moon (Dimorphos in this case).)

I pointed out that according to the known laws of orbital physics, it would be impossible for space rocks that supposedly spun off of Didymos to accrete into a moon of Didymos loosely held together by just gravity. For this reason, scientists previously thought it was impossible for asteroids or comets to have moons, but now hundreds have been found. Further, scientists have been shocked when they discovered that some asteroids and comets are contact binaries, and now they are surprised to find that asteroids are floating rock piles. (**Not part of our discussion**: If the equator was ejecting material, those ejected rocks

would be flying off in millions of different angles at various velocities and *would not* come together to form a moon.)

I maintained that the only scientifically sound mechanism for a rock pile of an asteroid or asteroid moon to come together is if, at some time in the past, a water atmosphere caused aero-breaking. I asked her if there was any evidence post impact that Dimorphos gave off water – which could explain the comet like appearance with a 6,000-mile tail. She responded that there was no evidence of water on Dimorphos and that the science of asteroid formation is ongoing; scientists are not yet able to completely explain their findings.

She then stated she was not surprised to discover that Dimorphos was not a solid asteroid. I pointed out that Elena Adams, mission systems engineer at the Johns Hopkins Applied Physics Laboratory, and her team were surprised when the cameras on DART revealed that both Didymos and Dimorphos were "rock piles," not solid bodies. In fact, NASA had promised that the DART Mission would not pose a threat to Earth. (Astronomers did not anticipate that material would be ejected during the Dimorphos impact because the DART mission planning was *based on the false assumption that Dimorphos was solid*.)

However, some now surmise that material ejected during the impact – completely unexpected - *could* become a threat to the earth in the future (naturalnews.com/2023-08-11-nasa-asteroid-crash-test-releases-boulder-storm.html). Further, on April 14, 2024, Earth.com published an article titled, "Asteroid Debris from NASA's Successful DART Mission May Strike Mars" (earth.com/news/space-rocks-nasa-dart-asteroid-deflection-mission-may-impact-mars/). Although this article maintains there is no chance any of the debris will hit Earth, it admits that, "The DART mission's unexpected findings serve as a powerful reminder of the complex and interconnected nature of our solar system."

Note that advocates of Dr. Brown's Hydroplate Theory explanation on the Origin of Comets and Asteroids have known for decades that asteroids larger than 200 meters in diameter are not solid, but are "floating rock piles." (Updated 6/26 – there is new evidence that this number should be changed to 600 meters for asteroids up to this size that are spinning too fast to be rock piles)

Dr. Thomas ended the discussion when I again brought up that everyone suspected that asteroids were solid and she replied that this was not true.

A Prediction from the European Space Agency

Shortly after my discussion with Dr. Thomas on March 24, 2024, I learned of a paper published by Dr. Sabina Raducan from the European Space Agency (ESA), whom modeled what would happen if the DART probe hit a floating rock pile instead of a solid body. This paper, titled "Reshaping and ejection processes on rubble-pile asteroids from impacts," was submitted in August 2022, a month before DART impact, and can be read here: aanda.org/articles/aa/full_html/2022/09/aa44807-22/aa44807-22.html. Raducan eventually received an award for this work.

In April 2026, I saw this article, written just before DART impact: "NASA's unprecedented asteroid-deflection mission is more than 'billiards in space,' scientists say – Computer simulations and lab experiments will help interpret test collision, revealing which strategies might save Earth from a real threat," science.org/content/article/nasa-s-unprecedented-asteroid-deflection-mission-more-billiards-space-scientists-say, in which Dr. Thomas agrees with Dr. Raducan's predictions. See Addendum A for this and related articles.

April 29, 2026 Conversation between Kevin Lea and Dr. Cristina Thomas

While in Flagstaff, AZ in late April 2026, I visited Northern Arizona University and Dr. Thomas graciously agreed to see me, even without an appointment. I started by apologizing for not being aware (in our discussion two years earlier) about Dr. Raducan's paper (which I called "the minority report") predicting the outcome of the DART impact should Dimorphos be a rock pile rather than a solid body. I noted that it was strange to me why anyone in a space agency would publish on such an eventuality when it is impossible for them to explain how floating rocks of various sizes all the way down to dust piles could possibly form in the vacuum of space. I also noted that I realized the space agencies are now coming around to this possibility because the **evidence** from Ryugu, Bennu, Deep Impact (Temple 1), etc. showed that comets and asteroids are not as solid as they thought.

I pointed out that currently, astronomers cannot explain how asteroids and comets could be "floating rock piles;" how comets and asteroids could have moons; how contact binary comets and asteroids could form; or, in the case of the asteroid Dinkenish, how it became a binary asteroid with its moon being a contact binary as well. (Pertaining to Dinkenish, the following is taken from a google search: "Even more surprisingly, scientists later discovered that the moon Selam is actually a "contact binary" – two smaller, peanut-shaped objects stuck together. This is the first known contact binary orbiting another asteroid. For a closer look at the stunning imagery and the mechanics behind this surprisingly complex, peanut-shaped asteroid system and its moon:----- ")'

I then told Dr. Thomas that I do not believe that Dinkenish's moon Selam is a contact binary because the pictures from the Lucy probe clearly shows dark space between the two moons. She responded that her understanding from those who were part of the Lucy mission is that they believe the darkness is a shadow rather than space between the two moons.

Note: This picture shows this dark space. Astronomers admit they are shocked to discover a contact binary moon. I believe they would be even further stunned to discover a binary moon that is *not quite* a *contact* binary.

I told Dr. Thomas that there were simple answers to all of these puzzles. I proposed the following: Everything in space can be explained by there having been an ancient watery world (I didn't call it Earth), **with life on** it, that in the distant past had an explosive event where water from this ancient world erupted at escape velocity while entraining some atmosphere, rock and debris of all sizes all the way down to dust. This ejected gas and debris left the watery world in pulses that sent them in different directions and velocities, but each pulse sent its associated debris at nearly the same velocity and trajectory. Over time, the surrounding atmosphere resulted in aerobraking of the solid debris causing the

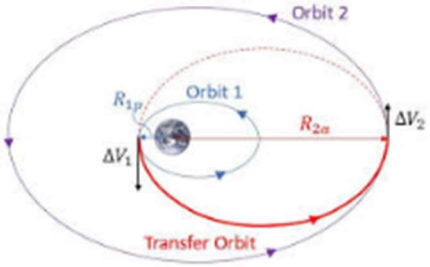
millions of pieces to come together into the very loosely held together rock piles and contact binary asteroids and comets that we see today. I also said that I didn't believe that the finding of Bacillus bacteria in the Ryugu sample was a result of a contaminated clean room. I went on to say that for some of the jettisoned debris, the solar winds were able to sweep away the atmosphere (thus removing the aerobraking deceleration forces) before all of the debris came together, which resulted in asteroids and comets with a moon, or multiple moons.

Applying this to DART, I said that if Didymos/Dimorphos debris had held onto their atmosphere a little longer, then Dimorphos' orbital velocity would have continued to decrease until it became a contact binary with Didymos. After considering this a moment, Thomas responded, "You're right."

I then emphasized that this simple scenario answers all the enigmas being found in space. I showed her my copy of Dr. Brown's Ninth Edition of In the Beginning: Compelling Evidence for Creation and the Flood, and offered to send her a copy if she would consider reading the details on the origin of comets and asteroids. Thomas said she "would take a look at it."

I then went back to our conversation of two years ago emphasizing again that it is not possible for the centrifugal force of a somehow spun up Didymos to jettison debris that would become the moon Dimorphos. I mentioned that I bounced her explanation off Air Force Academy Professor of Astronautics Dr. Rob Brown who said that any debris leaving a "spun up" Didymos would leave elliptically and not come together into the circular orbit Didymos without receiving a second thrust boost, called the Hohmann Maneuver (see sidebar below). So far, no one has discussed such a second boost. I gave her Dr. Rob Brown's phone number if she would like to discuss this with him. I then thanked Dr. Thomas for her time and left.

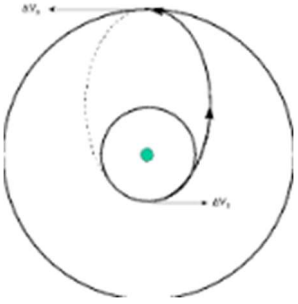
Sidebar – The Hohmann Maneuver



A **Hohmann transfer orbit** is a highly fuel-efficient orbital maneuver used to transfer a spacecraft between two circular orbits. It works by using an elliptical trajectory that is tangent to both the starting and target orbits, requiring exactly two precise engine burns. [1, 2, 3, 4]

How the Maneuver Works

1. **The First Burn:** The spacecraft, traveling in its initial circular orbit, fires its engine forward. This increases its velocity (\(\Delta v\)) and stretches its path into an elliptical transfer orbit. The lowest point of this ellipse (perigee) matches the initial orbit, while its highest point (apogee) reaches the altitude of the target orbit. [1, 2, 3]
2. **Coasting:** The spacecraft coasts along the ellipse. As it climbs away from the central body, it naturally slows down according to Kepler's laws. [1]



3. **The Second Burn:** Upon reaching the apogee of the ellipse, the spacecraft is moving slower than it needs to be in a circular orbit at that altitude. It fires its engine a second time to speed up, circularizing the orbit at the new, desired altitude. [1, 2]