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**Above:** Nick Scoville's dog, Luna, relaxes next to handmade chairs crafted by her owner. See story on page 6.

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## "Writing" Kudos

Whitney Clavin's fascinating essay "Writing in the Language of Math" explores several innovative modes of expression in mathematics. Another example is Leonardo's depiction of the formula for the volume of a dodecahedron in a sketch: dissected into 12 pentagonal pyramids, in turn into 60 tetrahedra, and reassembled into a figure of known volume (Codex Forster 1, folio 7r, Fritjof Capra, The Science of Leonardo). In the digital age, writing tools such as LaTex can be used to even do algebra: copy the previous equation; make a small legitimate change; repeat. Then I am tempted to replace the dozens of intermediate steps with "trivial algebraic manipulation yields" for the final publication. Perhaps even more innovative ways of writing math can spring out of Fritz Zwicky's morphological box applied to this topic.

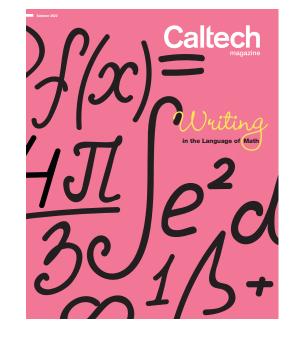
> Jeff Scargle (PhD '68) MENLO PARK, CA

Just wanted to tell you how much I appreciate your work to help us understand cutting-edge science fields outside of our own—particularly MATH. Math was a real problem at CIT my second year—nearly flunked it. Yet as an orthopaedic surgeon specializing in spine matters for over 40 years, I have recently ventured somewhat tentatively into largely mathematical analyses (elementary stuff, really) of aviation crash issues in night approaches to so-called black hole airports! How the h--- did that happen? Caltech to me was truly a small cozy incubator, with cross-fertilization a primary feature!

> Robert C. Thompson, MD (BS '60) HOMER, AK

Great article! I wonder if young folks nowadays know where the term "Carriage Return" comes from that lives on as ASCII character no. 13. Probably they think of bringing back a rental car 😂

Thomas Schnuerer on Twitter



# A Star Is Born

Thank you, Philip Appleton, for the brilliant, lucid, thrilling explanation of this remarkable image and extension of human awareness. I have been a lifelong student of astronomy and astrophysics. The data from JWST is reawakening a keen passion in my mind to continue that journey of exploration. Having wonderful teachers and scientists to help the public see what they see in the data, is essential. Philip, I hope you do a lot more of these videos showing the discoveries of JWST; even about subjects other than Stephan's Quintet. ... I have to tell you that watching this video was enlivening ... I have thrills and chills running up and down my spine. ... Thank you!

Joseph Woodhouse on YouTube

#### For the Record

The obituary for Carl V. Larson in the Summer 2022 issue's "In Memoriam" section incorrectly stated Larson's birth year. He was born in 1930.

- See the YouTube video "Stephan's Quintet: Caltech Expert Gives a Guided Tour of the New JWST Image," and also the story on page 4.





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### **Endnotes Sneak Peek**

This year, the Earnest C. Watson Lecture Series turns 100. If you were to give a Watson Lecture, what would the title be, and why should people attend?

# "You Can Lead a Horse ... "

People should attend to learn about the behavioral psychology and economics that leads nations and their leadership into wars—both consequential and relatively trivial. Careful analysis and the application of game theory in deconstructing modern and historical wars, including civil war, sheds light on the opportunities missed in avoiding the worst consequences and provides a basis for understanding the contemporary political movements shaping our futures.

Mark Caruso (BS '83)

PALM DESERT, CA

For more Watson Lecture ideas, see Endnotes on page 40.