

PHYSICS COLLOQUIUM:

The use of Social Media as a Museum of Science and Math

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About The Speaker:

Dr. Raymond Edward Hall is a Professor in the Department of Physics at California State University, Fresno where he teaches courses in engineering physics, quantum mechanics, particle physics, critical thinking, and the philosophy of science. Dr. Hall also uses social media to promote public interest in physics and science. His Instagram page @physicsfun



(https://www.instagram.com/physicsfun) has more than 2 million followers (as of October 2019) and features video clips and short explanations of scientific toys and curiosities. His Physicsfun page on Facebook features similar content and has about 450,000 followers.

Earning a PhD in Experimental High Energy Particle Physics from the University of California, Riverside, in 1994, Dr. Hall spent 16 years as a researcher with the D-Zero Collaboration. During his participation on the construction and operation of the D-Zero Detector at the Fermi National Accelerator Laboratory in Batavia, Illinois, he was part of the research team that discovered the fundamental particle known as the top quark in February of 1995.

Abstract:

Physics education has traditionally incorporated demonstrations as a best practice in teaching, partly because physical phenomena are dynamic in nature- static images are rarely able to convey the underlying principles, or illustrate the surprisingly counter intuitive aspects of the real world. The social media platform Instagram allows the wide distribution of short high resolution video clips, which turns out to be an ideal format for sharing interesting physics phenomena to engage the public in the excitement of science.

The Instagram stream @physicsfun features a daily short video post that showcases physics toys, kinetic art, mathematical objects, and scientific curiosities from my personal collection. In this talk I will highlight the history and science of some famous physics toys, discuss the motivation and methods of capturing them on video, and describe the reaction so far: Over 2 million Instagram users subscribing to a social media museum of science and math.



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