PHYSICS COLLOQUIUM:

Across the Physics-Verse: Creating Comics for Students in Introductory Physics

Dr. Roger Freedman

Associate Teaching Professor Emeritus, Physics

UC Santa Barbara

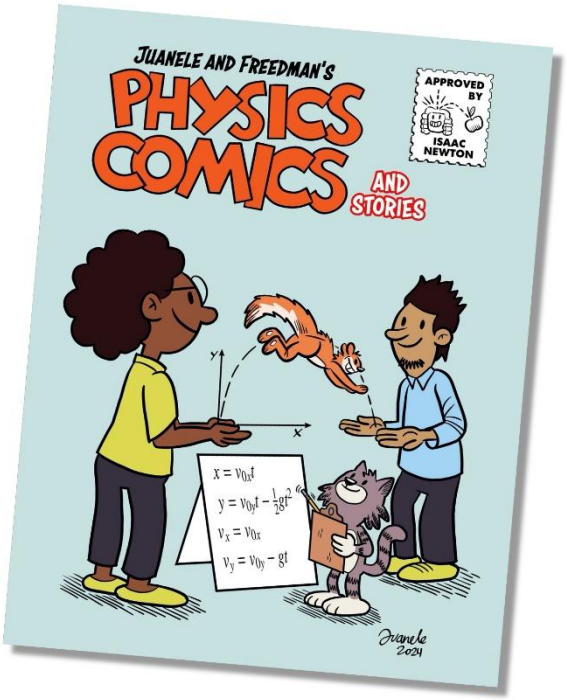
Date:
10/30/2026

Time:
10:30 AM – 11:50 AM

Location:
SSB 130

About The Speaker:

Roger Freedman is Associate Teaching Professor Emeritus in the Department of Physics at UC Santa Barbara. He did his doctoral dissertation at Stanford in theoretical nuclear physics, and has worked in both particle theory and the theory of the free-electron laser. For the past several decades he has concentrated on physics education and is the co-author of several introductory textbooks in physics and astronomy. While studying physics as an undergraduate he was part of the original group that organized San Diego Comic-Con, now one of the largest popular culture conventions in the world.



Abstract:

Comic books have been used for eight decades to inform the general public about physics. Only recently have attempts been made to use this rich and engaging medium to help students taking introductory physics. With my physicist/cartoonist colleague Juan Manuel Ramírez de Arellano ("Juanele"), I am developing a series of comic book stories in both English and Spanish intended to assist physics students with both gaining conceptual understanding and learning problem-solving skills. In this talk I'll describe the history of how physics has been presented in comics, discuss the motivation for and structure of our comic book stories, introduce the cast of characters that we use, and present the encouraging results of class testing.

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