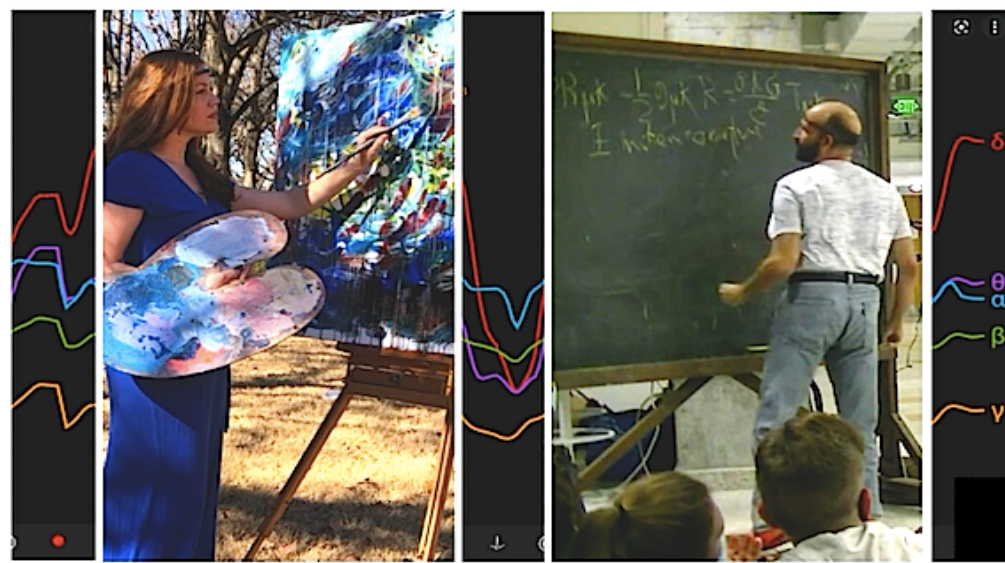


Picasso and Einstein in the classroom

Unlocking students' creativity

Francesco Fedele & Rachel Grant



Albert Einstein and Pablo Picasso, icons of the twentieth century have inspired generations of artists and scientists. Modern science is Einstein and modern art, Picasso. Albert Einstein's 1905 seminal paper on special relativity marks the beginning of modern sciences shaking the foundations of Newtonian physics. In 1907 Picasso had invented "Cubism", the movement that brought art into the twentieth century. Picasso discovered geometry as the language of the new art thanks to Poincaré's insights on time and simultaneity. These were also inspirational to Einstein's discovery of relativity.

In this talk, associate professor Francesco Fedele and professional artist Rachel Grant will provide an overview of their special topics course "Arts and Geometry" inspired by Picasso and Einstein's seminal work. In this course Francesco and Rachel introduce students to the geometry of space and manifolds and how these concepts have influenced modern arts and sciences, i.e. Picasso's Cubism and Einstein's relativity. The realization of geometry is visualization. Students practice how to draw by observing nature in order to enhance their skill in capturing the essential elements of reality by means of the language of geometry. Drawing and painting from observation helps develop critical thinking skills and alters how the student observes and engages with the world around them. The course is part of the RobotArts initiative that aims at increasing the number of Latino undergraduate and graduate students with skills in engineering. Robotarts aims also at vitalizing the virtual exchange and STEAM experience between Georgia Tech students and students of Colombian Universities in the Post-COVID Era.