

Tuesday, March 15th, 2022, at 2:30pm

Speaker: John Eric Goff, Professor of Physics

Institution: University of Lynchburg

Title: Aerodynamics in the Beautiful Game

Abstract:

I will discuss research I have performed with colleagues in England and Japan that centers on the aerodynamics of World Cup soccer balls. We have used trajectory analysis of filmed balls in flight and wind tunnels to better understand how panel shapes and surface features influence aerodynamic coefficients. We have also employed 3D printing to create balls that allow us to use surface features to predict the transition from laminar flow to turbulent flow as ball speed increases.