

Physics Department Seminar

3:30pm February 21, Physical Sciences room 301

ESTEN SCHROEDER

CSU Chico

Physics of the "Impossible Shot"



Have you ever wondered how a soccer player is able to curve a soccer ball? Did you even know it was possible? This seminar will introduce the phenomena of how a soccer ball bends once it's been kicked. We will explore the physics behind what's actually happening as a ball makes its way through air and into the back of the net. Some of the physics that we will touch base on will be the Magnus effect, Bernoulli's principle, also the lift and drag force due to curvature of the ball. We will talk about

how the difference in pressure on each side of the ball can affect the deflection it'll take. I will discuss how the lift force of the ball can be determined and the difference between the theoretical lift force and actual lift force. We will finish off the seminar with the new technologies that have improved the flow of air around the curvature of the ball and how they have affected the physics behind curving a soccer ball.

