ABSTRACT

Sports occupies an important part of our lives. It is often difficult to flip through the TV channels without encountering sports shows. Surprisingly, large fraction of the intriguing and often spectacular sports actions and feats can be explained using relatively basic physics concepts. In this talk I will present and discuss the physics behind some remarkably creative innovations in popular sports (baseball, soccer/football, volleyball, basketball, high Jump, gymnastics and swimming) using basic concepts in classical physics. The talk will feature exquisite and exclusive videos created by the New York Times graphics/multimedia team for sports that capture innovative feats of athletes like Simone Biles, Derek Drouin and Ryan Lochte. The main part of this presentation was initially created in collaboration with Bedel Saget, a New York Times graphics/multimedia editor for sports. Bedel Saget received a 2nd place award for his team's work, titled, "The Fine Line: Simone Biles Gymnastics" at the prestigious 2017 World Press Photo Digital Storytelling contest in the Immersive Storytelling category.