

Capturing Innovations and Underlying Physics in Sports

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Sports occupy an important part of our lives. It is often difficult to flip through the TV channels without encountering sports shows. Surprisingly, a 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.

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.