

The Reese T. Prosser Mathematics Lecture Series Presents

# Analyzing football is challenging, but player tracking data is here to help:

**How the National Football League leverages Next Gen Stats to better understand the game**

*Michael Lopez, NFL*

Wednesday, October 18, 2023 - 6:00-7:00 pm - Carpenter 13

Most historical National Football League (NFL) analysis, both main-stream and academic, has relied on public, play-level data to generate team and player comparisons. Given the number of oft omitted variables that impact on-field results, such as play call, game situation, and opponent strength, findings tend to be more anecdotal than actionable. With the release of player tracking data, however, analysts can better ask and answer questions to isolate skill and strategy. In this article, we highlight the limitations of traditional analyses, and use a decades-old punching bag for analysts – fourth-down strategy – as a microcosm for why tracking data is needed. Specifically, we assert that, in absence of a previously unmeasured variable, past findings supporting an aggressive fourth down strategy may have been overstated. Finally, we conclude with some best practices and limitations regarding usage of this data and discuss steps that students and football fans can take to get involved.

