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**Scott McKinley\***. *Anomalous Diffusion in Biological Fluids*.

The last twenty years have seen a revolution in tracking the movement of biological agents across a wide range of spatial and temporal scales. An important observation from these studies is that individuals tracked in living systems are often poorly described by the classical model for random movement, Brownian motion. To paraphrase Tolstoy: Brownian diffusions are all alike, but every anomalous diffusion is anomalous in its own way. In this talk, I will survey relevant findings and highlight the mathematical and statistical challenges they pose. In the end, we will contemplate how statistically informed mathematical modeling helps biologists understand the environmental factors that yield these peculiar behaviors, while also observing how natural data sets like these prompt novel questions for mathematicians. (Received August 22, 2021)