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Scott A McKinley* (scott.mckinley@tulane.edu), 6823 St Charles Ave, New Orleans, LA 70125. *Modeling and Inference for the Movement of Microparticles in Biological Fluids.*

Micro-scale agents in biological media – viruses, organelles, bacteria, and manufactured microparticles – display a wide variety of movement behaviors. An ongoing challenge is to first develop models that capture these varied behaviors and then to develop complementary statistical tools that can take a given path and determine which model mostly like produced the behavior. In this talk, we will look at recent progress that considers not only the underlying biophysical mechanisms, but also aspects of the observation process that bias and limit our inference goals. (Received September 16, 2020)