Date: Monday December 29

Time: 10:10-11:00

Location: Nano Building 51, seminar room 015

Speaker: Prof. Opher Donchin, Dept of Biomedical Engineering, BGU

Title: Statistics You Can Trust: Why You Should Embrace Bayes

Abstract: Frequentist statistics is a collection of ad hoc tools with complex and confusing rules and caveats. They are widely used but not widely understood. Bayesian statistics offers an intuitive, transparent alternative that aligns with how scientists and engineers actually think and work. I will give a rapid-fire and opinionated introduction to the Bayesian approach. We'll walk through the full Bayesian workflow—from model specification and prior predictive checks to sampling, diagnostics, and inference—using clear examples and real code. We will see how the Bayesian approach empowers the researcher by encouraging experimentation and creativity but also encourages a critical approach through testing and validation. My goal in this talk is not to replace one dogma with another, but to open up the world of possibilities by showing you a framework that simply works better in practice.

Bio: Opher Donchin is a full professor at Ben-Gurion University, where his lab studies motor learning and adaptation using simple models to capture the underlying processes. His teaching focuses on helping students build models they can understand, trust, and improve. He is (as far as he knows) responsible for making Ben-Gurion's Biomedical Engineering Department the first engineering program in the world to teach statistics from a Bayesian-first perspective.