BIOSTATISTICS SEMINAR

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Doubly Robust Estimation of Adaptive Treatment Strategies through Weighted Regression

Dynamic weighted ordinary least squares (dWOLS) was proposed as a simple analytic tool for estimating optimal adaptive treatment strategies. The approach aimed to combine the double robustness of G-estimation with the ease of implementation of Q-learning, however early methodology was limited to only the continuous outcome/binary treatment setting. In this talk, I will give an overview of dWOLS and present two recent extensions: the accommodation of continuous-valued treatments to estimate optimal dosing strategies, and the extension to censored ("survival") outcomes. An application of the latter extension to the treatment of Type 2 Diabetes will be examined to consider both the strengths and challenges of estimating optimal strategies using large, clinical databases.

Thursday November 7, 2019   **3:30 pm - 4:30 pm**
Blue Cross and Blue Shield of North Carolina Foundation Auditorium

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