



Statistics and Actuarial Science Seminar

Title: Using causal inference tools to explore the interplay between baseline attributes and interfering event in relation to t

Speaker: Michael O'Kelly (formerly IQVIA)

Date: Thu 24th April 2025 at 3:00PM

Location: E0.32 (beside Pi restaurant)

Abstract: In a clinical trial, it may happen that one of the treatment groups has strong side effects, and 'less hardy' subjects in that treatment group are more likely to receive adjuvant medication. For the other treatment group, in contrast, the subjects receiving adjuvant medication could be a simple random sample of the treatment group. When baseline attributes such as 'less hardy' are associated with the outcome of interest and also with an interfering event, this complicates our understanding of direct and indirect effects of a treatment. This presentation uses simulations to illustrate how two causal-inference tools, mediation analysis and estimates of a principal stratum, can support the assessment of direct and indirect effects in the presence of these baseline-related complications.