Seminar Writeup
Nan Tang

Standard for the Analysis and Design of Replication Study

Leonhard Held

1/25 3:30 - 4:30

Name: Sean Jewell

Affiliation: Forth-year PhD in UW Statistics

Sean said he is passionate in spatial-temporal modeling, things like remodel the spatial process of discrete spatial points to interpret non-parametric events.

In the seminar, the presenter introduced a new criterion, sceptic P-value, to evaluate replication success. The sceptic P-value is a combination of original P-value obtained from original study, and the P-value in replication study. I remembered one step to achieve sceptic P-value is by setting up a sceptic prior that is close to zero to reduce the effect of original variance on sceptic P-value. Compare to the traditional criteria, the sceptic P-value works well on replication test with strong power and makes it harder to achieve replication when the original test is suggestive. He also mentioned during the study, he had an serendipity that the balance point between p-value and replication success is 0.005 instead of 0.05, probability that implies the new significant level will increase the probability of replication success.