Familial aggregation of age-of-onset for specific diseases

Thomas Scheike

University of Copenhagen, Denmark

In this talk I will cover several approaches for trying to estimate familial aggregation for time to event data, that could be time to death or more typically competing risks. One can model these data on either the hazards scale and on the the cumulative incidence scale. Both these modeling approaches will recover the same information but of course are quite different. Random effects models in these settings are very useful but difficult to use in practice because of limited software, in particular for the often large data that could be available via for example registries.

Given that familial aggregation has been established there is often a desire to say something about a possible time-structure in the dependence or if the timing could be related to the risk level. For some cancers it is believed that early cancers are high risk. I will show how some of these questions can be addressed.