A spatio-temporal point process is a stochastic process whose realisations consist of points $(x_i, t_i) : i = 1, 2, \ldots$ where $x_i \in A$ denotes the location of an event of scientific interest and $t_i \in T$ the time at which the event occurs.

The usual assumption is that the index-sets $A$ and $T$ are continuous. However, this is often not the case in practice, and this affects both the formulation of appropriate models and the analysis of the resulting data.