## **PROF. BAO UYEN**, uOttawa/Defence R&D Canada Stopping condition processes for multiple entities

In both natural and artificial systems there are many stochastic processes which require a stopping condition. Examples of such processes include flipping a coin until we get a head, drawing a card until a certain value is obtained, or imposing a lockdown until the number of infections is below desired threshold. In this talk, we present the derivation of a general stopping condition for multiple entities (e.g., multiple coins) each with a number of opportunities and a total number of trials. Then we provide some real life examples how these conditions work, such as the Shoot-Look-Shoot tactics in air defence engagements or the community lockdown policies currently used all over the world.