

September 15, 2023  
2:00pm-3:00pm  
KAP 414

**Valentin Tissot-Daguette**  
**(Princeton University and USC)**

Stopping Spot Local Times: A Random Occupation

**Abstract:** We study an American derivative where the holder receives the local time of the underlying at the current level. Its price can be seen as the fair strike of a floating, infinitesimal corridor variance swap with early exercise. We derive the dynamic programming equation (DPE) of the associated optimal stopping problem by lifting the underlying process with its flow of occupation measures. The DPE also necessitates an adaptation of Itô's formula to this setting. Numerical approximations are finally discussed.

**Zoom Link:** USC Math Finance Colloquium

Join Zoom Meeting

<https://usc.zoom.us/j/94973619069?pwd=VnU5bVlMc1pzVTlEYUVaZUYyNSt6UT09>

Meeting ID: 949 7361 9069

Passcode: 925028