Dispersal of Mountain Pine Beetle in Banff and Impacts of Management

In this talk, I will present a hybrid model for the Mountain Pine Beetle (MPB). The model is made up of diffusion and chemotaxis-based PDEs for the beetle flight period and discrete equations for the MPB overwintering stage. The model includes forest management activities such as tree baiting and removal of green attack trees. I will discuss the formation of beetle attack patterns in the PDE model. Ultimately, we wish to understand how the inclusion of management strategies alters the attack patterns of MPB. Lastly, I will discuss future research plans and how the model will be tested against data from Banff National Park.

Join us for refreshments in CAB 549 immediately following the Seminar