**YU JIN**, Memorial University of Newfoundland
*Spatial Dynamics of a Periodic Population Model with Dispersal*

This paper is devoted to the study of spatial dynamics of a class of periodic integro-differential equations which describe the population dispersal process via a dispersal kernel. By appealing to the theory of asymptotic speeds of spread and traveling waves for periodic semiflows, we establish the existence of the spreading speed $c^*$ and the nonexistence of traveling wave solutions with the wave speed $c < c^*$. Then for the autonomous case we use the method of upper and lower solutions to obtain the existence of monotone traveling waves with the wave speed $c \geq c^*$. It turns out that the spreading speed coincides with the minimal wave speed for monotone traveling waves.