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Aijun Zhang* (zhang0aijun@hotmail.com), Department of Mathematics, Oregon State University, Kidder Hall 368, Corvallis, OR 97331-4605. *Nonlocal Dispersals with Moving Habitats.*

The current talk is devoted to the study of nonlocal evolution equations with moving habitats. The reaction of the populations will change with the moving habitat of speed c . The species will become extinct in the habitat if the moving speed c goes faster than the spreading speed c^* , where c^* is determined by the maximum linearized growth rate function. The persistence of the species will depend on the patch size of the habitat if the moving speed c goes slower than the spreading speeds c^* . Due to lack of the techniques as those for reaction diffusion equations like comparison(maximum) principle, Harnack inequality, regularity theory etc, the approaches for reaction diffusion equations can not be applied directly. The tools such as spectral theory, comparison principle etc. of nonlocal equations we developed in the current study possess their own interests in further studying such nonlocal equations. This is a joint work with Drs. Patrick De Leenheer and Wenxian Shen (Received September 18, 2017)