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**Fang Li\*** (fangli0214@gmail.com), No. 500 Dongchuan Road, East China Normal University, Shanghai, 200241, Peoples Rep of China. *Global dynamics of the Lotka-Volterra competition system with nonlocal diffusion.*

In this talk, we study the global dynamics of the following Lotka-Volterra competition model with nonlocal dispersals:

$$\begin{cases} u_t = d \left( \int_{\Omega} k(x, y) u(y, t) dy - \int_{\Omega} k(y, x) dy u(x, t) \right) + u(m(x) - u - cv), \\ v_t = D \left( \int_{\Omega} p(x, y) v(y, t) dy - \int_{\Omega} p(y, x) dy v(x, t) \right) + v(m(x) - bu - v), \\ u(x, 0) = u_0(x) \geq 0, \quad v(x, 0) = v_0(x) \geq 0 \end{cases}$$

where  $k(x, y), p(x, y) > 0$ ,  $m \in L^{\infty}$  and  $\int_{\Omega} m(x) dx > 0$ . Our main results consist of two parts. First, when both  $k(x, y)$  and  $p(x, y)$  are symmetric, the global dynamics can be completely classified provided that  $0 < bc \leq 1$ . Secondly, when  $k(x, y)$  is non-symmetric, while  $p(x, y)$  is symmetric, then the global dynamics can be characterized provided that  $0 < b < 1, 0 < c < 1$  and  $d$  is sufficiently small. This is the joint work with Xueli Bai. (Received January 14, 2015)