1067-35-1627 Jann-Long Chern, National Central University, Taiwan, Chang-Shou Lin, Taiwan University, Taiwan, Junping Shi* (shij@math.wm.edu), College of William and Mary, Williamsburg, VA 23187, and Yong-Li Tang, National Central University, Taiwan. Uniqueness of positive solution to semilinear elliptic systems.

The steady state solutions of a reaction-diffusion system usually satisfy a system of semilinear elliptic equations. While the existence of positive solutions can be shown with various ways, the uniqueness or exact multiplicity of positive solutions is difficult to obtain. We review some known results and recent work for sublinear systems and also radially symmetric solutions. (Received September 21, 2010)