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**Haiyan Wang\*** ([wangh@asu.edu](mailto:wangh@asu.edu)), Math Sciences and Applied Computing, Arizona State University, Phoenix, AZ 85069. *Positive Solutions of  $p$ -Laplacian Systems*. Preliminary report.

In this talk we will discuss the existence of positive solutions for the  $n$ -dimensional nonlinear elliptic system  $\operatorname{div}(|\nabla u_i|^{p-2}\nabla u_i) + \lambda f^i(u_1, \dots, u_n) = 0$  in  $\Omega$  and  $u = 0$  on  $\partial\Omega$ ,  $i = 1, \dots, n$ ,  $p > 1$ ,  $\Omega$  is a bounded domain in  $\mathbb{R}^N$ . I will present several results based on new concepts of superlinearity and sublinearity for system of equations. (Received September 08, 2005)