1031-35-114 P. Yang* (yang@Math.Princeton.EDU), Fine Hall, Washington Road, Princeton, NJ 08544. The p-mean curvature equation in 3D pseudohermitian geometry.

I will talk about my joint work with several collaborators on the isoperitric problem in CR geometry. I will first summarize the work with Cheng, Hwang and Malchiodi on the p-minimal surface equation, the structure of singular sets and the regularity of the p-mean curvature equation. Then I will talk about ongoing project with Chanillo on the isoperimetic problem in pseudohermitian geometry without torsion. (Received August 06, 2007)