Susanne C. Brenner, Department of Mathematics, Center for Computation & Technology, Louisiana State University, Baton Rouge, LA 70803, Christopher B. Davis\*, Department of Mathematics, Tennessee Technological University, Cookeville, TN 38505, and Li-yeng Sung, Department of Mathematics, Center for Computation & Technology, Louisiana State University, Baton Rouge, LA 70803. A domain decomposition method for a partition of unity method applied to fourth order problems. Preliminary report.

In this talk, we investigate the use of a type of additive Schwarz domain decomposition method for a partition of unity method applied to fourth order problems. The numerical algorithm will be presented and analyzed and numerical examples will be given to demonstrate the effectiveness of the method. (Received September 19, 2016)