1097-05-244 **Xiaofeng Gu*** (xgu@uwsuper.edu), Mathematics and Computer Science Department, University of Wisconsin-Superior, Superior, WI 54880. *Augmenting and preserving partition connectivity of a hypergraph.*

Let k be a positive integer. A hypergraph H is k-partition-connected if for every partition P of $V(H)$, there are at least $k(|P|-1)$ hyperedges intersecting at least two classes of P. We determine the minimum number of hyperedges in a hypergraph whose addition makes the resulting hypergraph k-partition-connected. We also characterize the hyperedges of a k-partition-connected hypergraph whose removal will preserve k-partition-connectedness. This is joint work with Hong-Jian Lai of West Virginia University. (Received January 23, 2014)