## 1050-53-28 Sikimeti Ma'u\* (sikimeti@math.mit.edu), Katrin Wehrheim and Chris Woodward. Quilted disks in Lagrangian Floer theory. Preliminary report.

Using the quilted Floer theory of Wehrheim and Woodward, we describe how a Lagrangian correspondence L between symplectic manifolds M and N can be used to define an  $A_{\infty}$  functor between suitably enlarged Fukaya categories of M and N. The construction uses a family of quilted surfaces called quilted disks, which realize a family of polytopes called the multiplihedra, close relatives of the associahedra. This is joint work with Wehrheim and Woodward. (Received January 06, 2009)