Jonathan Michael Bloom* (jbloom@math.mit.edu), Tomasz Mrowka (mrowka@math.mit.edu) and Peter Ozsvath (petero@math.mit.edu). A Künneth formula in monopole Floer homology.

We extend the TQFT structure of monopole Floer homology to cobordisms with multiple ends, equipped with families of metrics. Combined with the surgery exact triangle, we establish a Künneth formula for monopole Floer homology under connected sums. This application is joint work with Tomasz Mrowka and Peter Ozsváth. (Received June 23, 2011)