1050-53-135 **Richard Siefring*** (siefring@math.msu.edu), Dept. of Mathematics, A212 Wells Hall, Michigan State University, East Lansing, MI 48824. *Asymptotics and intersection theory of punctured pseudoholomorphic curves.*

Positivity of intersections for pseudoholomorphic curves and the resulting topological controls on intersections and embeddedness of closed pseudoholomorphic curves have been useful for applications of pseudoholomorphic curves to 4-dimensional symplectic topology. In a 4-dimensional symplectic cobordism, a precise description of the asymptotic behavior of punctured pseudoholomorphic curves allows for similar algebraic-topological controls on intersections and embeddedness despite the fact that the intersection number of two curves is no longer a homotopy-invariant quantity. In this talk we will explain the relevant results about the asymptotic behavior of curves near a puncture, and the resulting algebraic controls on intersections and embeddedness. (Received March 02, 2009)