1014-03-158 **Elizabeth T Brown** (brownet@math.jmu.edu), MSC 7803, James Madison University, Harrisonburg, VA 22807, **Andre Kornell*** (akornell@princeton.edu), Frist Campus Center, Box 1089, Princeton, NJ 08544, and **Justin Palumbo** (justinpa@eden.rutgers.edu), Rutgers, 31792 RPO WAY, New Brunswick, NJ 08901-8817. *Size and Difficulty of Mass Problems.*

Muchnik and Medvedev reducibility are equivalence relations between mass problems, or sets of functions, of similar computational difficulty. In this talk we will discuss notions of the size of a mass problem, namely the properties of smallness, cardinality, and a new property, d-smallness. We will present some results on the relationship between the difficulty of a mass problem and its size under these notions. (Received August 03, 2005)