1116-03-1247 **Chris Lambie-Hanson*** (clambiehanson@math.huji.ac.il). *Robust reflection principles.*

It is a common motif in set theory that, if κ is a large cardinal (Mahlo, weakly compact, measurable, supercompact, etc.), then κ satisfies certain interesting reflection principles. In addition, because most large cardinal notions are preserved under small forcing extensions, i.e. forcing extensions by posets with cardinality less than κ, these reflection principles, when they hold at large cardinals, are also robust under small forcing. It has been a fruitful line of research to consider the extent to which these reflection principles can hold at smaller cardinals. However, these principles can in general fail to be preserved by small forcing when they hold at small cardinals. Focusing on stationary reflection and the tree property, we discuss situations in which reflection principles can fail to be robust under small forcing, introduce natural strengthenings which are implied by large cardinals and which are in all cases robust under small forcing, and consider the extent to which these strenthenings can hold at small cardinals. (Received September 18, 2015)