# WEAK COMPACTNESS CARDINALS FOR ABSTRACT LOGICS

PHILIPP LÜCKE

ABSTRACT. A classical result of Makowsky shows that *Vopěnka's Principle* is equivalent to the existence of strong compactness cardinals for all abstract logics. Motivated by recent work of Boney, Dimopoulos, Gitman and Magidor, I will present an analogous combinatorial characterization of the existence of weak compactness cardinals for all abstract logics. This characterization can then be used to show that, in contrast to the existence of strong compactness cardinals, it is not possible to derive the existence of strongly inaccessible cardinals from the existence of weak compactness cardinals. More precisely, the existence of a proper class of subtle cardinals is consistent with the axioms of ZFC if and only if the existence of weak compactness cardinals for all abstract logics does not provably imply the existence of a strongly inaccessible cardinal.