IS THERE WEAK COMPACTNESS WITHOUT INACCESSIBILITY?

ALEX HELLSTEN

Weak compactness can be charactersised using elementary embeddings or reflection of Π_1^1 -sentences in a way that makes it possible to drop inaccessibility from the characterisation. Many arguments leading to results about the weakly compact ideal rely on inaccessibility. But the corresponding ideal may also be defined on cardinals that are not inaccessible.

We shall discuss aspects of weak compactness that do not need inaccessibility but also facts that point to inaccessibility being an important ingredient of weak compactness.

UNIVERSITY OF HELSINKI E-mail address: hellsten@cc.helsinki.fi