1143-03-414 **Shehzad Ahmed*** (sa066513@ohio.edu), Ohio University, Department of Mathematics 321 Morton Hall, Athens, OH 45701. *The Weak pcf Conjecture.*

Recall that, for a set A of regular cardinals, we define

$$\mathrm{pcf}(A) := \{\mathrm{cf}(\prod A/D) : D \text{ is an ultrafilter on A}\}.$$

In the case that A is an interval of regular cardinals satisfying $|A| < \min(A)$, we know that $|\mathrm{pcf}(A)| < |A|^{+4}$. This bound allows us to show that, for example, if $\aleph_\omega$ is a strong limit singular cardinal, then $2^{\aleph_\omega} < \aleph_{\omega_4}$. In the event that A is not an interval of regular cardinals, we know of no such bound on $|\mathrm{pcf}(A)|$. A conjecture of Shelah's is that, if A is a set of regular cardinals with $|A| < \min(A)$, then $\mathrm{pcf}(A)$ has no inaccessible accumulation point. In this talk, I will discuss why this is an important conjecture, and discuss some of its consequences. (Received August 20, 2018)