DAISUKE IKEGAMI, *On supercompactness of $\omega_1$.
SIT Research Laboratories, Shibaura Institute of Technology.
E-mail: ikegami@shibaura-it.ac.jp.

In ZFC, all the large cardinals are much bigger than $\omega_1$, the least uncountable cardinal. In ZF without assuming the Axiom of Choice, $\omega_1$ could have large cardinal properties such as measurability and supercompactness by the results of Jech and Takeuti. In this talk, we discuss some consequences of supercompactness of $\omega_1$ on sets of reals in terms of regularity properties and determinacy. This is joint work with Nam Trang.