In Hilbert's famous list of problems for mathematicians in the 20th century, the first one was to resolve the Continuum Hypothesis, namely to determine the exact size of the set of real numbers. The answer was unexpected as it turned out that it cannot be determined from the standard axioms we use in mathematics. The Continuum Hypothesis is only the first step in understanding the complexity of the continuum function, the function that gives the cardinality of power sets of infinite sets. In this talk I will give a description of these results and time permitting, I will mention the main topic of my research. No background on set theory or mathematical logic will be assumed.