Wen-Ching Winnie Li* (wli@math.psu.edu), Department of Mathematics, Pennsylvania State University, University Park, PA 16802. The Riemann Hypothesis, Ramanujan conjecture and their applications.

The Riemann Hypothesis and Ramanujan conjecture are two celebrated open problems in number theory which have important and far-reaching consequences. They also appear in different settings. In this talk we discuss their relations and show some applications derived from the occasions where the conjectures hold.

This is a survey talk highlighting the interplay between number theory and combinatorics. (Received January 21, 2019)