Counting cliques in 1-planar graphs

Kevin Hendrey
Institute for Basic Science, Korea

Time: Thursday, Aug 27th, 15:00 - 16:00
Zoom meeting ID: 683 098 16533   Password: 121323
Link: https://zoom.com.cn/j/68309816533

Abstract: A 1-planar graph is a graph which can be drawn in the plane so that every edge is crossed at most once. It is well known that the maximum number of edges in a 1-planar graph is $4n - 8$. It is natural consider extending this result to larger cliques. We precisely determine the maximum number of cliques of any given size in a 1-planar graph, and also determine the family of 1-planar graphs which are extremal for this question. This is joint work with Pascal Gollin, Abhishek Methuku, Casey Tompkins and Xin Zhang.