

## Decomposing Planar Graphs Under Degree Restriction

## Boram Park Ajou University

Time: July 22nd, 10:00 - 11:00 Zoom meeting ID: 87420082068 Password: 121323 Link: https://zoom.com.cn/j/87420082068

**Abstract:** Given a graph *G*, a decomposition of *G* is a partition of its edges. A graph is (d, h)-decomposable if its edge set can be partitioned into a *d*-degenerate graph and a graph with maximum degree at most *h*. For  $d \le 4$ , we are interested in the minimum integer  $h_d$  such that every planar graph is  $(d, h_d)$ -decomposable. It was known that  $h_3 \le 4$ ,  $h_2 \le 8$ , and  $h_1 = \infty$ . In this talk, we present a result that  $h_4 = 1$ ,  $h_3 = 2$ , and  $4 \le h_2 \le 6$ . This is a joint work with Eun-Kyung Cho, Ilkyoo Choi, Ringi Kim, Tingting Shan, Xuding Zhu.