FURTHER PROGRESS TOWARDS HADWIGER'S CONJECTURE

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Time: Thursday, Nov. 26th, 10:00 - 11:00
Zoom meeting ID: 692 352 34837 Password: 121323
Link: https://zoom.com.cn/j/69235234837

Abstract: In 1943, Hadwiger conjectured that every graph with no K_t minor is $(t-1)$-colorable for every $t \geq 1$. In the 1980s, Kostochka and Thomason independently proved that every graph with no K_t minor has average degree $O(t\sqrt{\log t})$ and hence is $O(t\sqrt{\log t})$-colorable. Recently, Norin, Song and I showed that every graph with no K_t minor is $O(t(\log t)^{\beta})$-colorable for every $\beta > 1/4$, making the first improvement on the order of magnitude of the $O(t\sqrt{\log t})$ bound. Here we show that every graph with no K_t minor is $O(t(\log t)^{\beta})$-colorable for every $\beta > 0$; more specifically, they are $O(t(\log\log t)^6)$-colorable.

About the speaker: Luke Postle is an associate professor at University of Waterloo, and a Canada Research Chair in graph theory. Before joining University of Waterloo, he was a mathematics fellow at Emory University. He got his Ph.D. from Georgia Institute of Technology in 2012, under the supervision of Prof. Robin Thomas.