

Ramsey numbers of 4-cycle versus books

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Time: Nov. 15th, 14:00 - 15:00

Zoom meeting ID: 841 3696 3399 Password: 121323

Link: <https://zoom.com.cn/j/8416963399>

Abstract: A book B_n is a graph which consists of n triangles sharing a common edge. In this paper, we study Ramsey numbers of quadrilateral versus books. Previous results give the exact value of $r(C_4, B_n)$ for $1 \leq n \leq 14$. We aim to determine the exact value of $r(C_4, B_n)$ for infinitely many n . As a special case, we show $r(C_4, B_{q^2-q-2}) = q^2 + q - 1$ for all prime powers $q \geq 4$. We will also consider a conjecture proposed by Fox, He and Wigderson (arXiv:2109.09205v1, 2021).

Joint with Chunchao Fan, Tianyu Li and Xing Peng.