Bounds for the edge-bandwidth of the triangular grid

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Abstract

In 1995, Hochberg, McDiarmid, and Saks determined that the vertex-bandwidth of the triangular grid $T_n$ was $n + 1$; more recently, Balogh, Mubayi and Pluhár posed the question of determining the edge-bandwidth of $T_n$ – that is, the vertex-bandwidth of $L(T_n)$. I will discuss joint work with Tao Jiang, Zevi Miller, and Dan Pritikin in which we determine that the edge-bandwidth of $T_n$ is bounded above by $3n - 1$ and below by $3n - o(n)$. 