

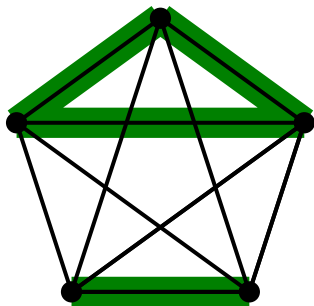
Tuza's conjecture for binary matroids

Jorn **van der Pol**
(University of Waterloo)

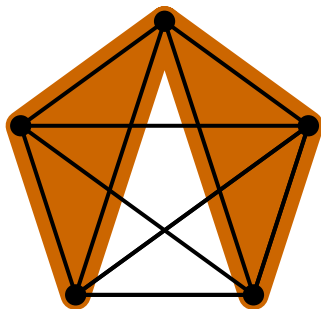
based on joint work with
Kazuhiro **Nomoto**

Preprint available at [arXiv:2112.06385](https://arxiv.org/abs/2112.06385)

Tuza's (original) conjecture



$\tau(G)$: size of min. \triangle -hitting set

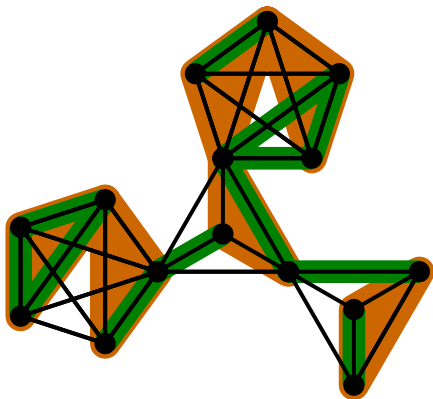


$\nu(G)$: max. number of edge-disjoint \triangle s

$$\nu(G) \leq \tau(G) \leq 3\nu(G)$$

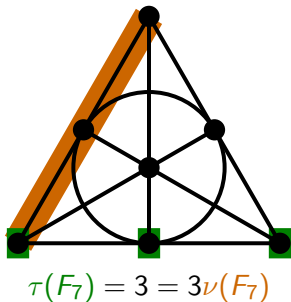
Tuza's (original) conjecture

Tuza's conjecture (1981): $\tau(G) \leq 2\nu(G)$



Haxell (1999): $\tau(G) \leq 2.87\nu(G)$

Does Tuza's conjecture hold for binary matroids?



Conjecture: $\tau(M) \leq 2\nu(M)$
for all simple binary matroids M with no F_7 -restriction

Nomoto–vdP (2021⁺): True for cographic matroids

Tuza (1990): True for planar graphs

Haxell (1999): $\tau(M) \leq 2.87\nu(M)$ for such matroids