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Erdős-Pósa property of tripods in directed graphs

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Let D be a directed graphs with distinguished sets of sources $S \subseteq V(D)$ and sinks $T \subseteq V(D)$.
A *tripod* in D is a subgraph consisting of the union of two S-T-paths that have distinct start-vertices and the same end-vertex, and are disjoint apart from sharing a suffix.

This talk presents a proof that tripods in directed graphs exhibit the Erdős-Pósa property.
More precisely, there is a function $f \colon \mathbb{N} \to \mathbb{N}$ such that for every digraph D with sources S and sinks T, if D does not contain k vertex-disjoint tripods, then there is a set of at most $f(k)$ vertices that meets all the tripods in D.

One of the tools applied to obtain this result is the matroid intersection theorem for gammoids.
The presented work is joint with Marcin Briański, Karolina Okrasa and Michał Pilipczuk.

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