

Sequenceable partial Steiner triple systems

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A partial Steiner triple system of order n denoted by $\text{PSTS}(n)$ is a collection of edge-disjoint triangles contained in K_n . The triangles used are called the blocks of the $\text{PSTS}(n)$. A subset S of $3k$ vertices is block-partitionable, if there are k vertex-disjoint blocks in the $\text{PSTS}(n)$ whose union is S . A $\text{PSTS}(n)$ is sequenceable, if the points can be sequenced so that no proper subset of consecutive points in the sequence is block-partitionable, In this talk I discuss when a $\text{PSTS}(n)$ is sequenceable. (Joint work with Brian Alspach and Adrián Pastine.)