

Institut für Diskrete Mathematik

**Combinatorics Seminar**

Friday 26th January 12:30

AE06, Steyrergasse 30

**Almost partitioning every 2-edge-coloured complete  $k$ -graph  
into  $k$  monochromatic tight cycles**

VINCENT PFENNINGER

(Graz University of Technology)

A  *$k$ -uniform tight cycle* is a  $k$ -graph ( $k$ -uniform hypergraph) with a cyclic order of its vertices such that every  $k$  consecutive vertices form an edge. We show that for  $k \geq 3$ , every red-blue edge-coloured complete  $k$ -graph on  $n$  vertices contains  $k$  vertex-disjoint monochromatic tight cycles that together cover  $n - o(n)$  vertices.

This talk is based on joint work with Allan Lo.

Joshua Erde, Mihyun Kang