

---

**JOZSEF SOLYMOSI**, University of British Columbia, Vancouver

*Extremal problems for linear  $k$ -uniform hypergraphs*

A hypergraph is linear if every two hyperedges share one point at most. We investigate the following question. What is the maximum possible number of edges in a linear  $k$ -uniform hypergraph  $H$  with  $n$  vertices which does not contain a given linear  $k$ -uniform hypergraph  $G$  as a subgraph? We show applications to geometry and number theory.