



# ICECA

International Conference  
Enumerative Combinatorics and Applications  
University of Haifa – Virtual – August 17-19, 2026

## RECENT ADVANCES IN GRAPH INDUCIBILITY

RAPHAEL YUSTER

Department of mathematics, University of Haifa, Haifa, Israel

For a fixed graph  $H$  and a graph  $G$ , the induced density of  $H$  in  $G$  is the probability that a random subset of  $|V(H)|$  vertices of  $G$  induces a copy of  $H$ ; thus, multiplied by  $\binom{|V(G)|}{|V(H)|}$ , it counts the number of induced copies of  $H$  in  $G$ . Let  $I(H, n)$  be the maximum induced density of  $H$  over  $n$ -vertex graphs. The inducibility of  $H$ , denoted  $I(H)$ , is the limit of  $I(H, n)$  as  $n$  goes to infinity (the limit always exists). This important concept was first defined in a paper by Pippenger and Golumbic (1975) and is a well-studied topic in extremal graph theory ever since. Yet, we know the value of  $I(H)$  only for a handful of graphs and graph families. I will survey recent results in this area that determine the inducibility of new classical families of graphs. In particular, I will sketch proofs that determine the inducibility of every matching and every dense Turán graph.