

## Seminario de Grafos

**Speaker:** Marcelo Lage (Universidade de São Paulo)

**Title:** The Ramsey Number of Multiple Copies of a Graph

**Abstract:** Let  $H$  be a graph without isolated vertices. The Ramsey Number  $r(nH)$  is the minimum  $N$  such that every coloring of the edges of the complete graph on  $N$  vertices with red and blue contains  $n$  pairwise vertex-disjoint monochromatic copies of  $H$  of the same color.

In 1975, Burr, Erdős and Spencer established that  $r(nH)$  is a linear function of  $n$  for large enough  $n$ . In 1987, Burr proved a superexponential upper bound for when the long-term linear behavior starts.

In 2023, Bucic and Sudakov showed that the long-term linear behavior starts already when  $n$  is an exponential function of  $|H|$  using some of Burr's techniques along with the absorption method.

In this seminar, we will discuss the proof of Bucic and Sudakov.

**04/11, Sala John von Neumann, 7mo piso, 12.00 hrs.**

