

# Seminar

**Speaker:** [Petr A. Golovach](#)  
([■■■■■ ■.](#)  
[■■■■■■■■■](#))

**Title:** Hadwiger number of graphs with small chordality

**Date:** Friday, 17 Oct 2014

**Time:** 18:30-19:20

**Location:** [Univeristy of Athens,](#)  
[Department of](#)  
[Mathematics, University](#)  
[of Athens, room Γ33](#)

---

## Abstract

The Hadwiger number of a graph  $G$  is the largest integer  $h$  such that  $G$  has the complete graph  $K_h$  as a minor. We show that the problem of determining the Hadwiger number of a graph is NP-hard on co-bipartite graphs, but can be solved in polynomial time on cographs and on bipartite permutation graphs. We also consider a natural generalization of this problem that asks for the largest integer  $h$  such that  $G$  has a minor with  $h$  vertices and diameter at most  $s$ . We show that this problem can be solved in polynomial time on AT-free graphs when  $s > 1$ , but is NP-hard on chordal graphs for every fixed  $s > 1$ .

Download date: 2024-12-11, 23:24.