

# THE UNCOUNTABLE HADWIGER CONJECTURE AND NON-SPECIAL TREES

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The Hadwiger conjecture is a deep unsolved problem in finite graph theory with far-reaching consequences. It states that if  $G$  is a simple finite graph and the chromatic number of  $G$  is  $t$ , then the complete graph on  $t$  vertices is a minor of  $G$ . Recently there has been some interest in the conjecture for infinite graphs. Dominic van der Zypen proved that the infinite version of the conjecture fails and later Péter Komjáth showed that the uncountable version fails under  $\text{CH}$  but holds under  $\text{MA}_{\omega_1}$ . We will show how this problem relates to the existence of non-special trees and furthermore deduce new graph characterizations of Suslin and Aronszajn trees.