

Year: 2010

Vol.: 77

Fasc.: 3-4

**Title:** Asymptotics of the extremal values of certain graph parameters in trees with bounded degree

**Author(s):** Clemens Heuberger and Stephan G. Wagner

In a recent paper, the authors of this note determined the trees of given maximum degree which maximize the number of independent vertex subsets and minimize the number of independent edge subsets respectively. It turned out that some kind of digit representation plays a major role in the characterization of the optimal trees. In the current paper, we study the asymptotic behavior of the optimal parameter values. It turns out that they increase exponentially, but with fluctuations which can be described by means of the aforementioned digit system.

**Address:**

Clemens Heuberger  
Institut für Mathematik B  
Technische Universität Graz  
Austria

**Address:**

Stephan G. Wagner  
Department of Mathematical Sciences  
Stellenbosch University  
South Africa