



*Invited lecture*

**GRAPH THEORY AS AN INTEGRAL PART  
OF MATHEMATICS**

PETER HORÁK

Nobody doubts the significance of the applications of graph theory to other sciences (e.g. electrical engineering, psychology, economics) or to real life problems. However, in this talk, we concentrate on a different type of application; the possibility of utilization of graph theory methods in other branches of mathematics. To demonstrate this kind of applications, graph theoretical proofs of well-known theorems in areas such as set theory, number theory and analysis will be presented.